SEPTEMBER, 1954

Industrial FINISHING

Published Monthly in the Interest of Product Cleaning and Painting by Practical Publications, Inc. 1168 N. Meridian Street, Indianapolis 4, Ind.

Look to Lilly

for
Uniform... High Quality
INDUSTRIAL PRODUCT FINISHES

● Throughout the years—since its founding in 1865—Lilly Varnish Company has expanded its technical and production facilities to keep pace with the ever-increasing—and changing—demands of industry for high quality Industrial Product Finishes.

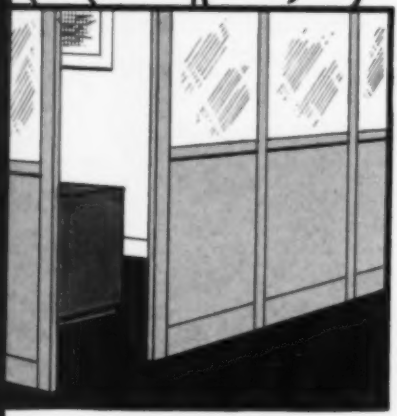
Three Lilly plants today are serving American industry with all types of product finishes and coatings: VARNISHES ... LACQUERS ... ENAMELS ... METAL LITHO COATINGS ... STAINS and WOOD FILLERS.

Our complete technical and finishing service is available to help manufacturers with their individual finishing problems and requirements. Contact your nearest Lilly plant.

Lilly **VARNISH COMPANY** · **Indianapolis, Indiana**

AFFILIATED PLANTS AT GARDNER, MASS. AND HIGH POINT, N. CAROLINA

YOU HAVE TO REALLY PUT YOUR BACK INTO IT!



Yes, it takes a lot of doing to damage a steel partition protected with finishes by Interchemical.

Movable steel partitions are subject to damage by impact and abrasion during relocation plus the never-ending daily exposure to perspiration, grime and chance scuffing from thousands of passers-by. Thus they require a finish that is tough, adherent, resistant to marring and one that can be restored to its original "new look" by a low cost, soap-and-water beauty treatment.

Leading designers and fabricators of building interiors specify Interchemical finishes because they provide the toughness and durability to withstand severe abuse; yet they add beauty to the finest executive suite.

For a lifetime of customer satisfaction, switch to . . .

IC STEEL PARTITION FINISHES

Interchemical Corporation

Finishes Division

FACTORIES: CHICAGO, ILL. • CINCINNATI, OHIO • ELIZABETH, N. J.
LOS ANGELES, CAL. • NEWARK, N. J. • MEXICO CITY, MEX.

In Canada, IC products are sold by AULCRAFT PAINTS LTD., Toronto, Ont., under its trademarks.

NEW!

NCP

NCP Water White Lacquer #51 *PROVES* Amazing Color Retention In Actual Tests!

We took two raw wood panels and applied a white undercoat. We coated the first panel completely with another leading Water White Lacquer, the second completely with NCP Water White Lacquer #51. We placed both panels in the sunlight; the top half of each panel was covered with aluminum foil to prevent exposure to light, leaving the bottom half open to exposure. Here's what happened:

This half coated with other leading Water White lacquer and not exposed to light.

This half coated with other leading Water White lacquer and EXPOSED to direct sunlight. **Yellow discoloration occurs.**

This half coated with NCP Water White Lacquer #51 and not exposed to light.

This half coated with NCP Water White Lacquer #51 and EXPOSED to Direct Sunlight. **COLOR RETAINED.**

PROOF! Where New NCP Water White Lacquer #51 is used, Original color is retained; the quality of your product is assured.

To ASSURE MAXIMUM COLOR RETENTION Use NCP Water White Lacquer #51

The National Chemical & Plastics Co.
1422 Philpot Street Baltimore 31, Md.

Write For Details of new improved NCP Water White Lacquer #51.

Whirlpool ***proves that the right finish is an important retail selling feature***

Whirlpool knows that the finish leaves an important first impression with the customer; an impression that will continue as long as the beauty of the finish keeps pace with the mechanical quality of the product.

They know, too, that the demands of competition leave no time to rest on past success. That's why the finishing operation, like all others at Whirlpool, is marked by constant research and experimentation.

That is why we are kept continually on the job . . . both as an approved source for finishing materials, and as an advanced research laboratory. Our staff is working hand in hand with Whirlpool to anticipate the finishing needs of tomorrow's market.

The Better the Finish, the Better the Buy

GRAND RAPIDS VARNISH CORPORATION

MAKERS OF THE FAMOUS Guardsman® FINISH AND Guardsman® CLEANING POLISH

GRAND RAPIDS, MICHIGAN

SEPTEMBER, 1954
Vol. XXX, No. 11

BPA

A monthly magazine for company executives, production superintendents, process engineers, chemists, purchasing agents, paint shop and finishing department foremen of industrial plants where product surface cleaning and painting are major operations in the manufacture of parts and products of all kinds.

Industrial FINISHING

W. H. ROHR, Editor P. C. BARDIN, Associate Editor

Contents

Random Comment on the Industrial Scene 4
Industrial Paint Samples "Big Deal" 22
Painting Military Planes 36
Fouling Ovens 49
Automatic Fire Protection For Production Painting 52
Finishing Fine Office Furniture 60
Letters From Readers 72
Flock Coating Fiber Board For Glove Compartments 80
Questions and Answers 88
Materials; Supplies; Equipment 96
Editorial 116
Booklets; Circulars; Catalogs 124
Classified Advertising Department 125
Advertisers Index 128

Technical Director Appointed by Glidden Company 32
R. C. Mahon Co. Completes Another Expansion 32
Phosphate Primer Coat Removed Quickly 41
Apply Your Paint at Uniform Temperature 42
Enthone Renames Compound 42; Calls it "Enthol" 43
Production Supervision to Be Studied at A.M.A. Seminars 43
J. T. McCafferty Promoted by Jones-Dabney Co. 44
Glidden Creates Marine Paints Department 44
New Barrell Finishing Lab. Opened by Roto-Finish Co... 44
A. D. Joyce Has Died 44
E. J. Sobota to Represent National Lacquer & Paint Co... 50
Free Spray Painting School in Chicago, Oct. 4-8 58
Udylite Names Sales Eng. 58
Pennsalt Names Representative 58
Morrill & Renshaw Moves Into New Chicago Factory.. 70
New Spruance Plant 70
Prevent Flock From "Balling Up" 87
Pennsalt Chemicals Opens Canadian Division 90
Two Executives Promoted by Devoe & Raynolds 94
Grand Rapids Varnish Corp. Holds 38th Annual Sales Convention 118
Cleaning Insides of Steel Drums 119
New England Office Opened By Detrex 122

Acceptance under Section 34.64, P. L. & R., authorized

Published
the 10th of each month by
PRACTICAL PUBLICATIONS
Incorporated
1142 N. Meridian St.
Indianapolis 4, Ind.
Telephone MElrose 5-6771

President ..... W. H. Rohr
Vice-President ..... E. A. Dosch
Sec.-Treas. ..... R. E. Suits

Eastern Representative:
C. A. LARSON
254 West 31st St.
New York 1, N. Y.
Phone: Longacre 4-4285
4-4286

West Coast Representative:
SIMPSON-REILLY LTD.
Halliburton Building
Los Angeles 17, Calif.
Telephone: Dunkirk 8-1179
814 Central Tower
San Francisco 3, Calif.
Telephone: Douglas 2-4994

Subscription Rates Per Year
U. S. and Possessions $3.00
Canada and Foreign $5.00

30 THIRTIETH YEAR OF PUBLICATION

Construction Contracts Are Up. Construction contract awards have set new records month after month.

F. W. Dodge Corp. reports of construction contract awards in the 37 eastern states totalled nine and a quarter billion dollars in the first six months of 1954, setting a new record 17% above the same period of last year.

Dodge's Midyear Review includes a detailed analysis of construction contracts — manufacturing, commercial, residential, public buildings, utilities.

Since construction contract awards precede actual construction, the record levels of awards during the first half of 1954 indicate that construction activity during the remainder of the year, at least, will be at very high levels. This will be reflected directly in construction employment and payrolls and in sales and shipments of construction materials. Indirectly, the effect will spread through other fields of activity as a powerful upward force, since this 35-billion-dollar-a-year industry is one of the mainstays of the national economy.

* * *

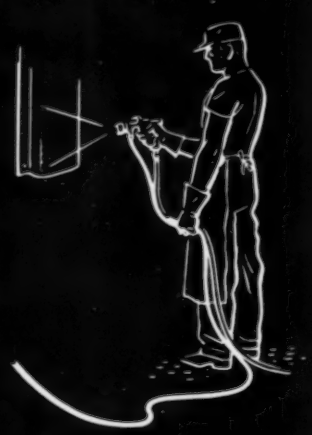
Talk, Listen Anywhere. The General Industrial Co. announces production of a new portable Wireless intercom, "Port-A-Phone." Simply plug into any standard 120-volt AC or DC outlet and it's ready to go to work. Compact, 2-way, portable intercom requires no wires, installation or extras! Saves time; simplifies office-to-shop and inter-department communication. Frees phone switchboard for incoming calls. Allows instant 2-way communication between 2, 3 or more persons in separate departments or buildings.

* * *

Colors to Order. A universal tube system of colorants to be used with just two tinting paint bases—white and neutral—provides 300 decorator colors in a choice of finish qualities ranging from latex to alkyd. To be known as "Maestro Colors," the system was designed to provide a full range of hues to match or comple-

Wide range of decorative colors available.

Dolan's 35% HI-SOLIDS LACQUER



. . . sprays right from the drum: requires no thinning or heating. 35% solids in a single application.

OUTSTANDING!!

. . . Because it can be sprayed without the addition of thinners or the necessity of pre-heating to bring down to spraying viscosity, Dolan's 35% Hi-Solids Lacquer gives an improved finish at greatly reduced cost. It is unusually tough, with exceptional cold check resistance. Very light in color. Fits into any finishing schedule. A demonstration will prove convincing. Write us for 5 gallons at drum price!

"From the start consider the Finish"

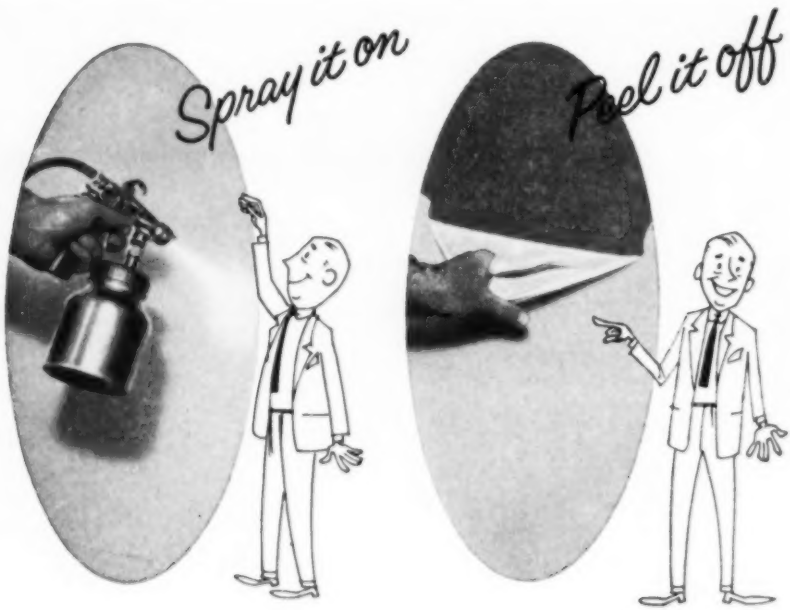
V. J. DOLAN & COMPANY, Inc.

Manufacturers of "Unquestionable Quality"

INDUSTRIAL FINISHES

1830 N. Laramie Ave. Chicago 39, Ill.

BErkshire 7-0100



new PEEL FILMITE removes dried over-spray from paint booths in minutes!

Using regular spray equipment, spray DuBois PEEL FILMITE over clean booth. As soon as walls are dry, your booth is ready to operate. When overspray accumulates, score the coating; peel off big sheets at a time.

PEEL FILMITE stays flexible, doesn't age. Contact DuBois today for details on PEEL FILMITE, the new high strength, peelable plastic film! It cuts costs . . . cuts labor . . . it's

The DuBOIS Co., Inc.

Cincinnati 3, Ohio Los Angeles 33, Calif.

Serving Industry Since 1920

DuBois Warehouses And Representatives Are Located Coast- to-Coast

Dept. F.

ment decorator fabrics, wallpaper and carpeting at much less than custom color prices. It was developed by Pittsburgh Plate Glass Co.

* * *

Flame-Proof Cotton is now being used in safety garments for workers in certain industries. The treated fabric withstands high temperatures. Cloth so treated is expected to be used for mattress covers, upholstery fabrics, draperies and other items that are common sources of fire in homes and public places. The treated fabric will withstand laundering for the life of the article.

* * *

Plastic Pipe for oil and petroleum products has been developed. It is centrifugally molded of Bakelite, polyester resins and Fiberglas mat, has high strength and it is corrosion resistant.

Designed primarily to combat severe corrosion such as occurs in oil fields, this light weight pipe is said to offer important savings in transportation, installation and pipe replacement costs. Many other uses will develop.

* * *

Silicone-Treated Wool for upholstery is now available. Dow Corning Corp., announces a new silicone treatment for upholstery fabrics made from wool and woolen blends. It is said to render the fabric water repellant and to increase stain resistance, and will withstand dry cleaning. Silicone is applied to the fabric and is then cured at temperatures of more than 200° F.

* * *

Looks Like Mahogany. A hardwood plywood, known as Samara, is a product of United States Plywood Corp., and bears a striking resemblance to

2
QUALITY
LACQUERS
manufactured by
SCHWARTZ
CHEMICAL CO.
REZ-N-LAC
for STYRENE
NON-
TOXIC
VINA-PLAS
LACQUER
for VINYLS
SUPERIOR ADHESION
NON-CRAZING
FAST DRYING
REZ-N-LAC, for styrene, is a fast drying, high gloss enamel which is non toxic, non crazing and can't scratch off.
VINA-PLAS brings high lustre to vinyls and plastisols. Air dries in 5 minutes. Excellent adhesion. Easy to apply. Both products come in a wide range of colors. 1, 5, & 55 gallon sizes.
For descriptive literature write
Schwartz
CHEMICAL CO., INC.
328 W 70th St., New York 23, N. Y.

INFRA-RED HEATING TOOL WITH A THOUSAND USES

It's portable, adjustable, and versatile. Three (3) switch control lights any combination of bulbs from one to seven—from 250 Watts to 1,750 Watts by plugging in to any 115 volt outlet.

Now in active use in many large plants that find constant and varied applications for portable infra-red heat.

Low In Cost

Write us now for attractive and instructive catalog.

TRIPPE MFG. COMPANY
218 N. Jefferson Street
Chicago 6, Illinois

African Mahogany, although not of that family. It also has many of the characteristics of Spanish Cedar.

Light reddish brown in color, the wood is marked by a bold and highly decorative grain pattern. It finds added beauty in a lustrous sheen which contributes to a fine finish.

Years ago, while in limited supply and expensive, Samara was used almost exclusively for fine cabinet work. But now, with its production multiplied many times as new forests are tapped for the first time, it can be used more extensively for furniture, cabinet work and paneling.

* * *

Masonry Coating. The coating "Pliotone" (of a synthetic rubber based resin) has found success as a finish for surfaces such as concrete, stucco, asbestos shingle, brick, hot plaster and other masonry finishes. It is extremely durable, and resistant to water and chemical attack; it is non-oxidizing, mildew resistant, and drys rapidly to a smooth, long-lasting finish that will not yellow with age.

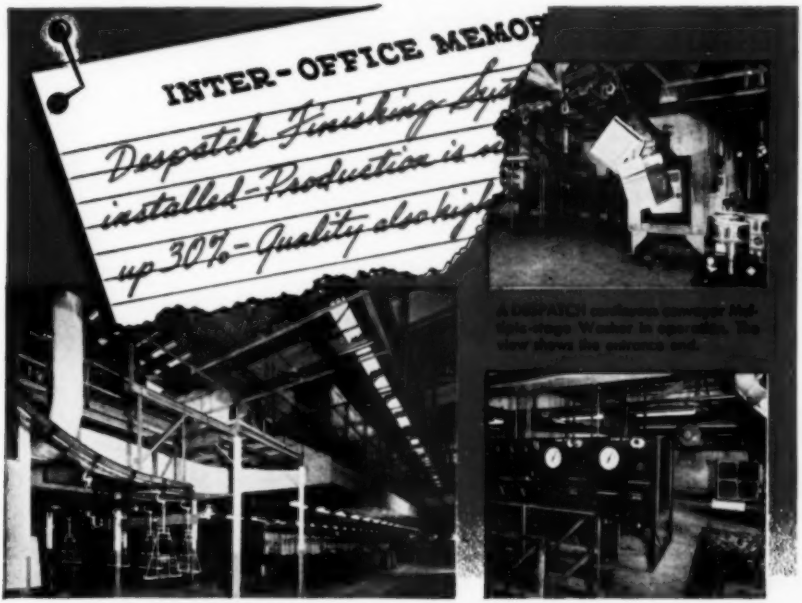
* * *

Control Sun's Glare. New, double cavity glass blocks for exterior walls and roofs, which provide a soothing glow of daylight even in the harshest sunlight, are now offered by Pittsburgh Corning Corp. Called "Suntrol," they are hollow glass blocks with pale green fibrous glass diffusing screens sealed into their centers.

* * *

Plastic Signs. Highway signs and other safety messages are being fabricated from rigid vinyl plastic by Seiberling Rubber Co., Akron, Ohio. The plastic signs will not chip or rust and they last many years with little

(Continued on page 123)



A partial view of DESPATCH continuous conveyor Finish Bake Ovens on a large refrigerator finishing line.

Part of the heating equipment and control panels for the DESPATCH Finish Bake Ovens shown in the picture at left.

Why you should select **DESPATCH** for your **FINISHING EQUIPMENT**

Large plants, small plants, medium sized plants, all have selected and installed modern finishing systems by DESPATCH to best fit into their product finishing requirements. With more and better quality production at lower maintenance and operating costs, the major factors on the finishing lines, DESPATCH engineering and manufacturing skills are being constantly challenged. The ability of DESPATCH engineers and craftsmen to successfully meet this challenge is backed by over a half century of progress in supplying equipment to the metal working industries.

When you select DESPATCH Finishing equipment for your plant you are assured of the latest tried and proven designs, specifically engineered to fit your plant and give you long, dependable, economical service.

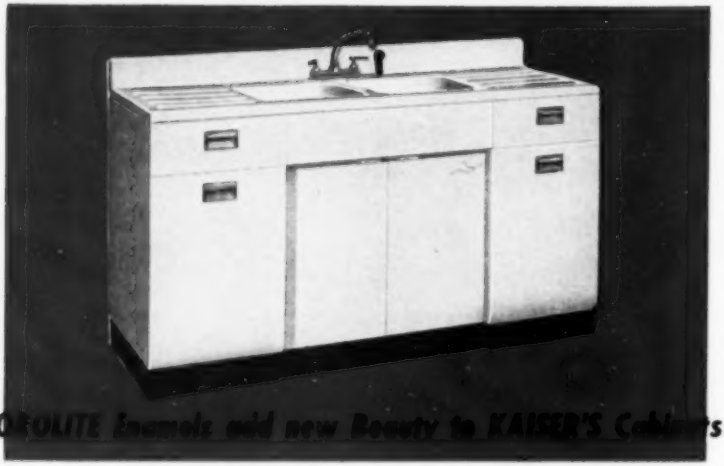
Write, wire or call DESPATCH—Dept. E

If you are planning on new finishing equipment for your plant it will pay you to call DESPATCH. You can get one unit, such as a washer, spray booth or bake oven, or you can have a complete finishing system designed, fabricated and installed exactly to your requirements.

DESPATCH is as near to you as your telephone or mail box. Write, wire or call and a DESPATCH representative in your area will call with complete information.

DESPATCH OVEN COMPANY

Cabinets have *Kitchen Appeal* with BENJAMIN FRANKLIN'S KOROLITE finish



KOROLITE Enamels add new Beauty to KAISER'S Cabinets*

QUALITY Benjamin Franklin finishes have passed all the rigid stain, abrasion, impact, and chemical tests required for these high-grade cabinets.

ECONOMY The combination of modern up-to-date production equipment and volume purchasing makes it possible for this NATIONAL AFFILIATE plant to produce quality finishes at reasonable prices.

SERVICE Trained technicians work closely with Kaiser's finishing department to insure continuous production and minimum rejections. This tank transport delivers Kaiser's enamel and primer on schedule.

* CABINET MANUFACTURER - KAISER METAL PRODUCTS, INC., BRISTOL, PENNSYLVANIA

NATIONAL AFFILIATE MEMBERS

ILLINOIS PAINT WORKS
Chicago, Ill.

PACIFIC PAINT & VARNISH CO.
Berkeley, California

BENJAMIN FRANKLIN PAINT & VARNISH CO.
Philadelphia, Pa.

DeSOTO PAINT & VARNISH CO.
Garland, Texas

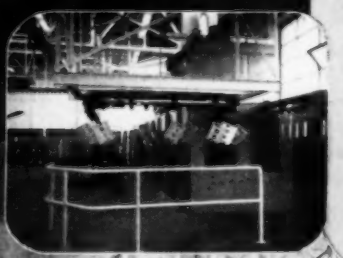
CAROLINA PAINT & VARNISH WORKS
Greensboro, N. C.

BENJAMIN FRANKLIN
PAINT AND VARNISH COMPANY
4820 Langdon St. • Philadelphia 24, Penn.

Dual Cincinnati FINISHING SYSTEMS

AUTOMATIC PAINT DIP and CHROMODIZER OPERATIONS:

1. Alkaline Clean
2. 1st Rinse
3. Passivate
4. 2nd Rinse
5. Hot Air Blow-Off
6. Paint Dip
7. Oven Bake
8. Stripper \ For empty con-
9. Rinse / veyor hangers.



save 60% in time

... for noted aircraft manufacturer

A double conveyor line cleaning and paint finishing system in a well known mid-western aircraft plant handles all sorts of formed aluminum parts up to 15" x 20" in size. Moving at 18 feet per minute, the conveyors carry the parts through the various operations, removing grease, oil and chips prior to painting and assembly.

Among interesting design features: The arrangement of the system around the outer perimeter of the room, leaves the center clear for storage and loading and unloading operations. The zinc chromate dip tank has a refrigeration system to maintain tank temperature at 74° F., reducing evaporation of volatiles. The system is protected with CO_2 equipment and automatic paint tank dump.

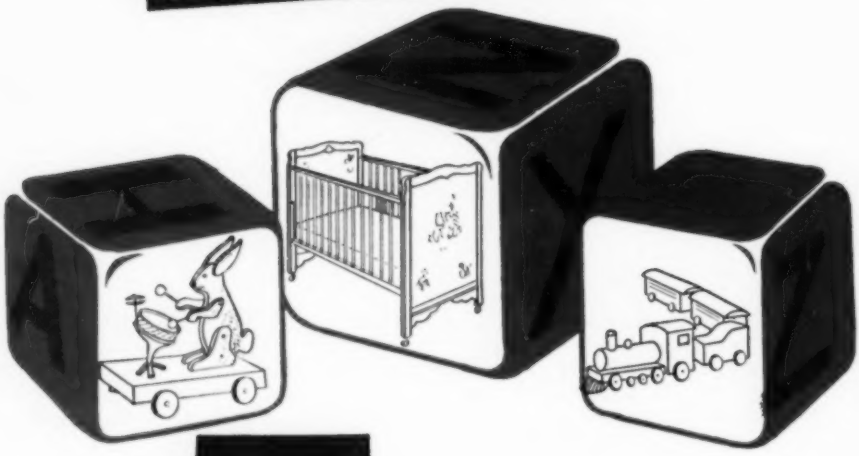
As was done in this installation, Cincinnati Engineers will gladly design equipment to suit your needs. Whatever your cleaning or finishing problems, a survey costs you nothing, may point the way to substantial savings. Write today for booklet: "Finishing Systems."

Cincinnati

CLEANING & FINISHING MACHINERY CO., INC.
2006 HAGEMAN STREET, SHARONVILLE, OHIO

Designed for

TOYS & JUVENILE FURNITURE



UNITED'S NON-TOXIC LEAD-FREE LACQUERS & ENAMELS

Brilliant colors galore and safety too—that's what you get in United's lead-free finishes. Gay, sparkling finishes formulated specifically for juvenile products, open new horizons for product beauty. And, you know the coating will meet your requirements. United's lead-free lacquers and enamels will stand up to the rough handling of children, too. Applied by dip, spray or brush, quick drying, they provide a tough, weather resistant coating for metal, wood or fibre board products. Specify United finishes to be sure—Send for color chips and a generous working sample today.

PAINTS · SYNTHETICS UNITED LACQUERS · ENAMELS

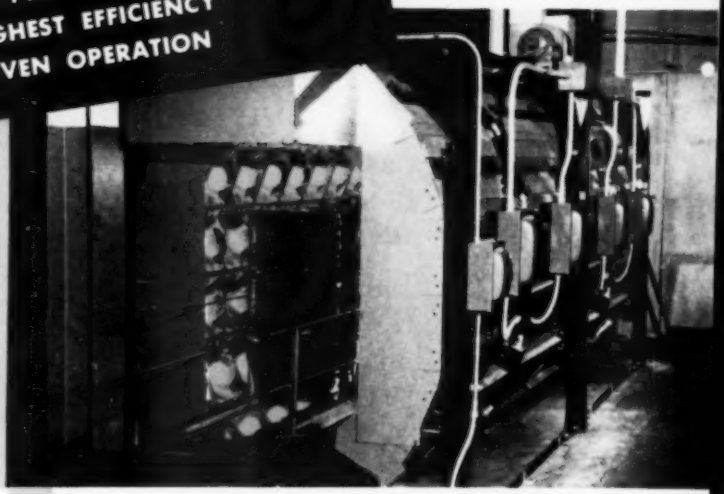
United LACQUER MFG. CORP.
LINDEN, N. J.

BAKING ECONOMY

LOWEST "PER PIECE" PRODUCTION COST
HIGHEST EFFICIENCY
OVEN OPERATION

Profit

WITH MODERN
FOSTORIA OVENS



Pictured at right is Fostoria oven at J. D. Street Co., St. Louis. Various color finishes are baked on steel drums at the rate of one per minute. Operating cost is only 48c per hour at 1c K.W.H. Oven space only 75 sq. ft. More durable finishes with time, space, and cost savings have resulted from this reasonable cost oven investment.

ALL THESE ADVANTAGES

Faster Cycles
Fastest heat transfer. Greatest output to input. Instant action.

Less Space
Most production for oven size. May be ceiling mounted.

Clean Operation
No by-products of combustion. No condensation.

Uniform Bake
Evenray heat distribution with thorough penetration.

Flexibility
Adaptable to any material, any shape, any color. Infinitely variable heat levels.

Safety Controlled
No warm-up, no shut-off lag. Instant heat control.

Less Maintenance
Lowest source replacement cost. Least efficiency loss.

Highest Efficiency
Less than 2% energy loss. Heats product — not oven walls.

Cuts Costs
Lowest "per piece" production cost. Competitive initial cost.

Reliability
Foremost engineering "know-how" and service.

New improved methods are sweeping American industry—higher efficiency equipment to meet today's vital need for cost saving. For baking and drying operations, plants by the thousands have converted to profit-building Fostoria Ovens. The production advantages are amazing — the investment cost insignificant compared to savings in production time, space, man-hours. Here, today, is "push-button" heat automatically controlled, wide in versatility, unequalled in speed and efficiency of energy output to input, PLUS highest quality results. We invite your request for full information and the expert analysis of your operation needs by a Fostoria field engineer.

THE FOSTORIA PRESSED STEEL CORP., FOSTORIA, O., Dept. I

Send for complete facts

Write for this brochure of technical facts and case histories of many Fostoria oven installations. Tell us your particular problem and we will include data directly applicable to your operation.

INFRA-RED fostoria OVENS

NEWEST MODERN

STAINS
FILLERS
SEALERS
LACQUERS
SYNTHETIC ENAMELS
PRIMERS
PAINTS & VARNISHES

Pictured above is one of the most modern, up to date and efficient lacquer manufacturing plants in the industry. The electrical equipment is explosion-proof in all critical areas. The flooring is conductive and non-sparking—and the entire building meets the most stringent safety specifications. It comprises mixing and blending room—grinding room—and six 1000 gallon storage tanks. Solvents stored underground, are pumped through metered pipelines to any desired station. Hydraulic elevators—stainless steel stain tanks—and 2000 gallon agitator vats—evidence the long range thinking and planning that devised this "years—ahead" factory of the future.

THE GILBERT
PHILADELPHIA 34, PENNA.

COMPLETE PLANT

Our attractive executive offices, and ultra modern research and development laboratory, are housed in this new 2 story brick and reinforced concrete building. They are completely air conditioned and an "intercom" system expedites operation of all departments. Every appointment, and all equipment, is of the newest, finest and most advanced type and design. Only the best of everything met our specifications.

Our laboratory is staffed by the most highly trained and skilled technicians in both research and product control divisions.

We extend a cordial invitation to those who can use our resources and cooperation.

Remove Grease and Grime in Seconds with ENTHONE *Emulsion Cleaner* 75

Heavy oil films and solid dirt are removed from steel almost instantly.

Tapped holes, slots, embossments, corners, crevices, sculptured patterns are completely cleaned.

Insures smoother, brighter, more adherent electrodeposits.

Used before phosphate coatings it minimizes coarse coatings.

Safe for operators, does not irritate nose, throat or skin.

Requires no heating facilities.

Write for fully descriptive literature.

ENTHONE
INCORPORATED
442 ELM STREET
NEW HAVEN, CONNECTICUT

METAL FINISHING PROCESSES

ELECTROPLATING CHEMICALS

GET 4 *Savings* WITH

YOUNG BROTHERS OVENS

for BAKING AND DRYING

Savings in...

TIME

MATERIAL

SPACE

and FUEL

Electrically Heated Truck-Type Oven

Only in Young Brothers Ovens, do you get the specially engineered features that provide maximum savings AND improved results. You reduce production time . . . prevent loss of materials . . . get better quality work when you use Young Brothers Ovens.

Their exclusive advantages have been developed through over 50 years of specialized oven experience. Thousands of successful installations in leading firms have produced highly profitable results.

For sincere, practical advice on your heat treating problems, without obligation, ask for a Young Brothers engineer, or write for Bulletin 4, today.

YB Co. Estab. 1896

YOUNG BROTHERS COMPANY

1835 Columbus Road Cleveland 13, Ohio

COLOR STYLISTS at the Glidden Color Studios will prescribe colors for your unit which harmonize with all that's new in floor covering, fabrics, and wall colors, to give your product maximum sales appeal.

CORROSION TEST PROVES extreme corrosion resistance of NU-PON Primer film. In 400 hour test NU-PON Primer panel at left was not eroded while modified alkyd film pitted and flaked.

CORRECT COLOR ON THE *Outside...*

CORROSION-RESISTANCE *Inside*

AIR CONDITIONERS made more salable, more durable by two Glidden Services

Glidden offers you valuable assistance on two key problems in the finishing and styling of your air conditioners.

First, Glidden can supply you with the ideal protective finish for unit interiors—moisture resistant, corrosion resistant NU-PON Primer. This new coating is ideally suited for application by flow-coating in a film thickness half that of standard alkyd primers.

Second, The Glidden Color Studios offer you custom color styling that adapts your unit to today's decorating trends and enhances product design. These specialists, who developed the famous SPRED SATIN Dramatone color system for home decorating, have color styled a wide variety of products for leading manufacturers.

Write today for your copy of the informative booklet on Glidden NUPON finishes.

THE GLIDDEN COMPANY

INDUSTRIAL FINISHES DIVISION

11005 Madison Avenue • Cleveland 2, Ohio

SALES OFFICES AND FACTORIES:

San Francisco, Los Angeles, Chicago (Nubian Division—1855 North Leclaire Avenue), Minneapolis, New Orleans, St. Louis, Cleveland, Reading, Atlanta.

Canada: Toronto and Montreal.

EGYPTIAN "COMPOSITE BAKE"* METAL PRIMERS can double your oven capacity too!

*"Composite Bake" . . . the simultaneous baking of the Egyptian System of Metal Primers and Top Coat in one pass thru the oven.

Recently one of America's largest Manufacturers of Air Conditioning Equipment† found himself wrestling with the finishing room bug-a-boo that eventually plagues every volume product manufacturer . . . overtaxed oven facilities – resulting in non-productive finishing room man-hours.

At the suggestion of his Egyptian Finishes Specialist he momentarily laid aside the obvious solution . . . additional baking units – and made a trial run, switching to Egyptian "Composite Bake" Metal Primers.

Here's how the tally sheet read: (1)-Oven capacity doubled. (2)– Non-productive man-hours practically eliminated. (3)– No additional baking equipment required.

In addition to these production advantages, Egyptian "Composite Bake" Metal Primers brought these highly desirable finishing characteristics:

†*Name upon request.*

- **EXCELLENT ADHESION to practically any metal surface.**
- **WILL TAKE MOST ANY TOP COAT—Lacquer or Synthetic Enamel.**
- **SMOOTH FILM and excellent "Enamel-Holdout"**
- **GOOD RUST RESISTANCE—Corrosion Inhibiting Pigments.**
- **SUITABLE FOR EXTERIOR EXPOSURES.**

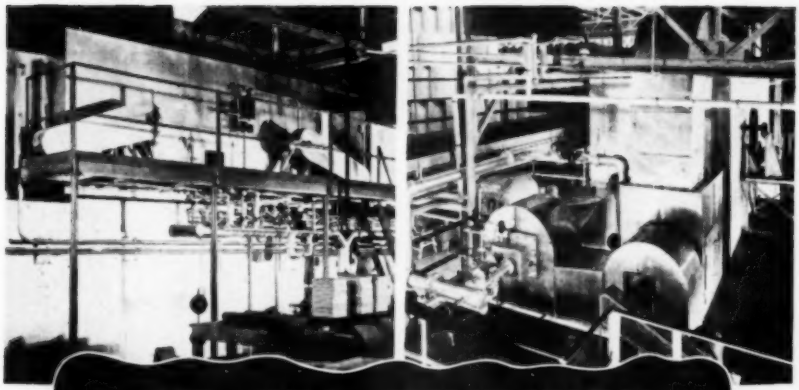
Listening to the complete Egyptian "Composite Bake" Story could point out the way to cut costs in your finishing room too. Invite an Egyptian Industrial Finishes Specialist to call on you TODAY, or write for detailed information. No obligation of course.

EGYPTIAN *Industrial Finishes*

The EGYPTIAN LACQUER MANUFACTURING COMPANY

BOX 444, NEWARK 1, NEW JERSEY

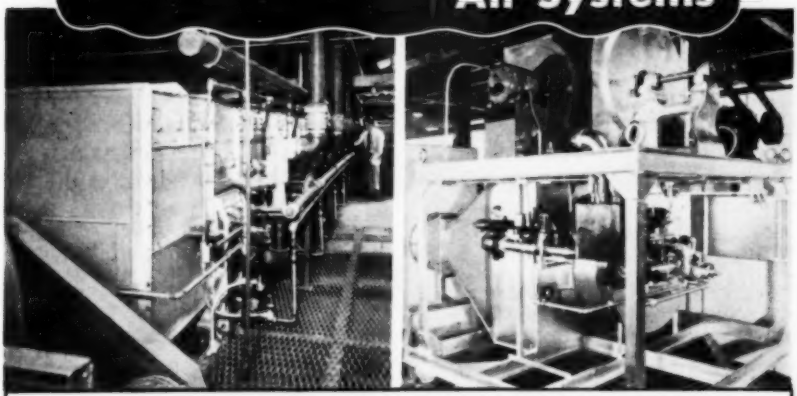
EXECUTIVE OFFICES, ROCKEFELLER CENTER, N. Y. • Plants: South Kearny, N. J.—Lafayette, Ind.



GET FULL UTILIZATION OF GAS HEAT WITH

ROSS

Ovens
Dryers
Make-Up Air Systems



J. O. ROSS ENGINEERING CORPORATION

MANUFACTURERS OF AIR PROCESSING SYSTEMS

444 MADISON AVENUE **NEW YORK 22, N. Y.**

ATLANTA • BOSTON • DETROIT • CHICAGO • SEATTLE • LOS ANGELES

ROSS ENGINEERING OF CANADA, LIMITED, MONTREAL, CANADA • CARRIER-ROSS ENGINEERING COMPANY, LIMITED, LONDON, ENGLAND

Industrial Paint Samples "Big Deal"

BY J. P. GARDNER

HALF A DOZEN well known paint engineers, with perhaps a total end for end experience in the field of industrial finishes of 150 years, have estimated that over 80,000 gallons of paint are shipped out annually as paint samples. This is difficult for the newcomer or the layman to conceive, but no exaggeration is intended here; this and the following calculations are intended to alert the trade, so to speak, to the effect that perhaps we can get more benefit from this volume of paint in the future.

It is difficult for the average person to conceive the approximate number of manufacturers in the United States and Canada who are volume users of industrial paints. To those users it sometimes seems that there are more industrial paint manufacturers than there are users. Few of us users have a good conception of marketing. We are always surprised when we see a production line other than our own and are amazed by the obvious market that must exist. Why wouldn't some of us feel that there are more paint material sources than there are users when we know very well that in a single week one user may be called upon by as many as a dozen different paint manufacturers' representatives.

Do Samples of Paint Total Up to 20 Carloads?

The 80,000 gallons mentioned is, of course, at 50 gallons per drum, equal to 1600 drums of paint. If we really intended to add insult to an

Here are some questions to consider before sending a sample of paint or finishing material: Are you sure you are contacting the right man? Does he want your sample? Will he give it a fair test soon? Do you know his shop conditions and facilities? And his paint or finish requirements or specifications? Do you feel reasonably sure that the sample of material you are sending will do the job effectively, on the basis of its performance and cost?

"Please, fellows! I only have a 500-gallon order to place and I've received 750 gallons of samples to test for it!"

injury we would go further and say that this amounts to at least 20 carloads.

Twenty carloads worth of business in one year would satisfy some of the paint manufacturers as being pretty good business.

Naturally, we don't get 100% utilization from our production paints, but if we did, we could say that the 20 carloads could possibly paint some 40 million square feet of surface. That is pretty good production painting volume. There are a great many manufacturers who paint much less than 100,000-sq. ft. of surface per day. At that rate, the volume in question could last him for 400 working days.

This figure of 80,000 annual gallons is very conservative. There is probably once again that much in the smaller shops which cannot be canvassed. There should be another three minutes of silence and meditation when we suddenly realize that less than 25% of these samples are ever tested at all. For the most part, they exist merely because one man has a great desire

Enough for a 3-ft. stripe from Maine to Calif.; enough solvent to drive 20 cars along it.

to sell, and he feels that submitting his sample is an important step—and the other man is too courteous to refuse him that pleasure. Let's not look at the reason for their existence just yet because it is more fun talking about the useless volume that is involved.

Enough for a 3-ft. Stripe from Maine to California

If it is, as they say, 3000 miles from Maine to California, our dormant and useless paint samples could paint a stripe 3-ft. wide all the way. It would be enough paint to do all the highway marking including all of the small towns from Maine to California. Now, if anyone is the least bit interested, and if the solvent samples that go with that 80,000 gallons of paint were gasoline, there would be enough to drive 20 cars along the 3-ft. wide stripe from Maine to California. They shouldn't have any trouble following that 3-ft. wide stripe.

Conservative is not exactly the correct word. The correct word is super-conservative.

Let us take a test case of one electrical manufacturer who operates 30 divisions, each having a paint laboratory that tests submitted paint samples. Each, on the average, would have no less than a half dozen samples per week. The average sample size has been determined as one gallon. The paint engineer must keep in good contact with his suppliers and it is no easy job to say, "No, I don't want your sample because I don't intend to test it." Those are bad words, especially just after a nice luncheon.

Too Many Samples Submitted; Tests Are Long Delayed

It isn't only the one supplier who submits a sample for a particular job that concerns the engineer. He has to eat every day, so in all fairness he allows all the active com-

Shock Absorbers

...are painted with the
RANSBURG NO. 2 PROCESS
using disc-type atomizer

A leader in the field, The Gabriel Company, Cleveland, uses the Ransburg No. 2 Process to apply the protective coating to its line of shock absorbers which vary in size from 4" to 26" in length.

● Efficiency and production in the finishing of shock absorbers progressively improved at The Gabriel Company, when—over a period of years—they went from dip to Ransburg No. 1 Process, then to the Ransburg No. 2 Process, with the disc-type atomizer.

Efficiency was stepped up measurably when the No. 1 Process of electrostatic spray painting replaced dip method in the application of the protective coating to the completely-assembled shocks.

NOW, with the even-more-efficient No. 2 Process—with disc-type atomizer—Gabriel is painting 1000 pieces per gallon of paint where they formerly finished 350! Production is up, too—almost doubled—jumping from 1000 to nearly 2000 units per hour. In addition to paint savings, they are getting a consistent, high quality finish and an even, protective coating over all areas of the product.

This is another on-the-job example of what Ransburg No. 2 Process is doing on production lines all over the country. We'd like to talk to you about the possible savings in your finishing department. Or, write for our brochure on Ransburg Electrostatic Painting Processes.

Ransburg **ELECTRO-COATING CORP.**
Indianapolis 7, Indiana

RANSBURG

petitors to submit on the same job. Once samples have been accepted, the pressure goes on. Each paint salesman has to report on the progress made with his samples. At long last the paint engineer tests a group of like samples and some day in the future comes up with the test results.

Paints aren't bought on material specifications, so they must be bought on performance specifications to be interpreted by the paint engineer or his trusty assistant.

As long as the paint supplier wants to keep his formulation a deep dark secret, the paint engineer has no alternative except to find that one material is better than all the rest. His position is a vulnerable one. He wants to do a good job; he wants to be courteous to all; and above all he wants to be fair, but if he has tested ten systems, he has at best made one supplier happy and he has made nine others very unhappy.

Now, if the best in these tests was not good enough to justify replacing his production material, we have accomplished little less than to widen the 3-ft. stripe from Maine to California.

One division manager of an electrical manufacturer, who makes large appliances as a side line, has a report from his laboratory (which, incidentally, is short handed) to the effect that the laboratory is 200 samples behind in their testing program. It may not be the laboratory man's fault that he has 200 samples. It may be company policy to allow all comers to compete for his business. Some of these samples naturally have had some pretty good shelf life testing to the extent that the samples themselves have become quite attached to their containers.

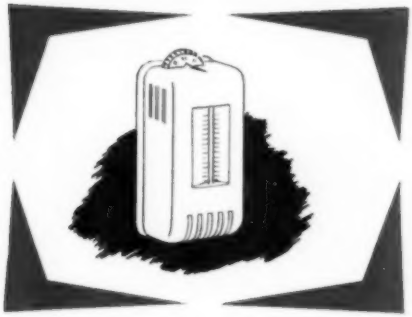
By applying all the power of imagination, one might conceivably justify such a testing program and consequently would expect the manufacturer to have made many supplier changes toward improved finishes. If, however, we were to discover that he has had the same single source of paint supply for 20 years, then we would wonder why the same people continue to submit samples.

How Sampling Pyramids Into Tremendous Volume

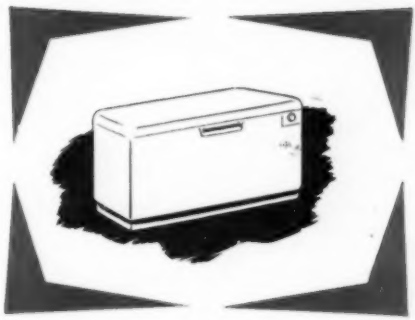
Now then, if this electrical manufacturer has three competitors of like size, and if there are 50 more competitors who make only certain lines of appliances, and 60 more lesser competitors who are also electrical manufacturers, and if each has a dozen paint suppliers scrapping for his business, we can begin to get an inside picture of the magnitude of the industrial paint sample business.

Some one of the original half dozen paint engineers mentioned at the beginning of this article offers a figure of 160,000 industrial manufacturing units using a sizable volume of paint. Everything that is manufactured must be finished in one way or another so probably this figure is no exaggeration. However, there is one incidental interesting detail; the figure doesn't include anything except metal products. Manufacturers using wood or compound probably have their own highway marks to worry about. It

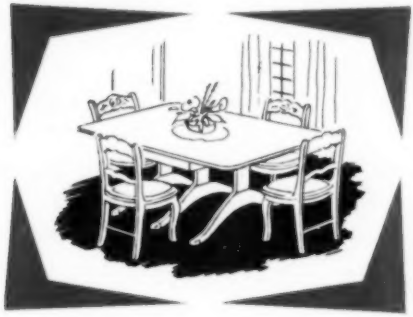
Finish by ZAPON®



Duranite wrinkle finishes, in decorative colors, put an attractive, durable surface on home hardware.



Duranite enamels are fine for appliances; they resist alkalis, acids; resist fading and yellowing.



Zaponite® lacquers give modern furniture a rich, full finish that resists marring, printing and alcohol.

Zapak® paper coatings protect printed labels; give high gloss, are abrasion and crack resistant.

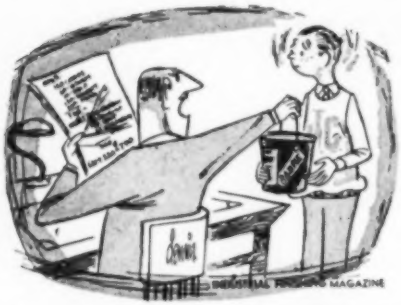
ZAPON®

"Service from Every Angle"

—starts by selecting the right finish for your specific product . . . follows through with recommendations on preparation and application in your plant.

ATLAS POWDER COMPANY WILMINGTON 99, DELAWARE

for Industrial Finishes • Stamford, Conn. • North Chicago, Ill.



"Take it to the lab . . . and don't drop it! That gallon of paint cost $740.00!"

is further stated that these 160,000 manufacturers are the ones large enough to justify having their own paint testing laboratories, or having their paints tested elsewhere.

Another interesting detail that came up was in the form of a question as to what percentage of these samples are actually tested. Actual experience would prompt the suggestion that only half of them are ever applied to test panels. No one is really to be blamed for the situation because the paint salesman wants to get his samples considered and he can't possibly do so without submitting them. The user wants to be fair and hates to say "No" to anyone.

What It Really Costs to Supply Industrial Samples

If the true value of this sample business were to be measured, we would have to include many items. There is the value of multiple personnel and their representative overhead costs. The cost of sample development, the selling cost up to the actual submission of the sample, the cost of shipping—all must be considered. The cost of records, bookkeeping and reports are also items of cost on the part of the paint manufacturer. The cost of testing and the cost of interviews in terms of man hours is a major item for the user.

For the paint manufacturer alone, he may list something like the following:

$120 to make it.
60 to keep records throughout.
10 to ship and follow-up.
130 contacts to get samples accepted.
200 follow up to conclusion.

$520 total cost for a one gallon sample.

Some paint manufacturers claim they have a great many samples costing a great deal more. These costs must include travel and entertainment items too.

And It Costs Prospective Users to Test Them Too

If only one half of these samples are ever tested, the user also has an expense item to consider. The user's personnel must devote time which someone has suggested as follows:

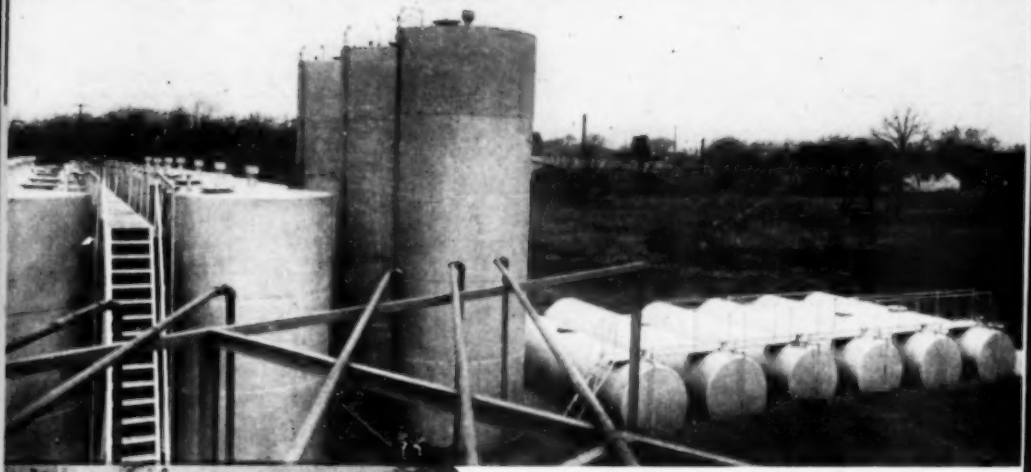
$20 time for preliminary interviews.
40 time for follow-up interviews.
130 for testing time and materials.
30 reports and sad convincing interviews.

$220 total for the gallon sample.

If a dozen 6x12-in. panels are involved in each test, there is the cost of 240,000-sq. ft. of metal surface to be considered. The user also has incidentals and some traveling costs to include.

If, by some chance, these ridiculous figures are acceptable, and assuming that half of the samples are tested, it would add up to over $50,000,000 annually spent on the paint sample business.

The situation can't possibly be all bad but there is more. The princi-



PARTIAL VIEW OF THE HOME OF

BARKER LACQUER THINNERS

Unexcelled for their high quality, uniformity and low cost

BARKER CHEMICAL COMPANY

One of America's Largest Manufacturers of Lacquer Thinners

700 EAST 138TH STREET • CHICAGO 27, ILLINOIS

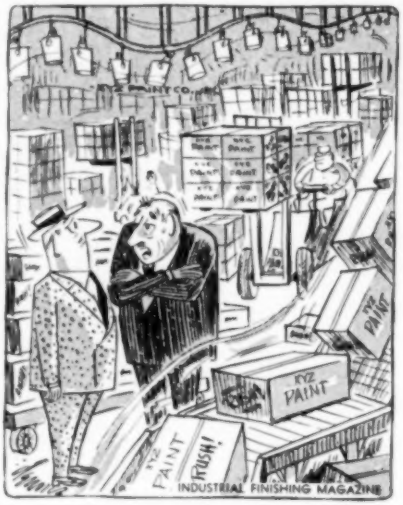
pals in this crazy investigation agree that a user has to clean house every six months to get rid of samples which no longer have any value to him. They further agree that an average of 20% of the samples are thoroughly and accurately tested, and that about 1% are finally accepted for production.

Corrective Practices Suggested; Learn to Say "No" When . . .

There will most likely always be a sizable paint sample problem. Both the user and the supplier can help bring the situation into a more useful category. If the user is firm in his convictions, and desires to help his suppliers to the greatest degree, he should accept samples for test only when he is absolutely sure that there is a chance for production use in the event of a successful test. He could, in many instances, do his supplier a good turn by saying "No," and explaining why. A salesman's value is not measured by the number of samples he places. It is measured by the amount of paint he actually sells.

If we conceivably believe that $50,000,000 a year is spent on paint samples, it certainly would add up to a $25,000,000 cross country saving if we all agree to test half as many and try to do a better job on those we do test. We would most likely make greater progress in coating development. Wasn't it a golf pro who said, "Hit it half as hard and go twice as far"?

There must be a solution to this waste of money. A solution can only come from admitting our past mistakes and then doing something about them. A solution could be based on fairness to all concerned. It isn't fair to allow a supplier to submit a sample when we know that he will never sell us that item, even before we receive it. It isn't fair to our suppliers to accept their samples merely out of courtesy to a salesman.



"On the contrary, business is at a standstill. These are all salesmen's samples."

Accept Fewer Samples; Make Better Evaluation Tests

Why don't we all admit that *the only one who can sell us is the one who can help us?* We all surely need help. We could set up a universal healthy rule. Let us all say we won't change sources of supply unless we can get a higher quality finish without cost increase, or hold our present quality at a cost saving. This business of testing a large number of samples per year for the sake of testing is pure and simple nonsense. [*To page 32*]

It's practically

WATER-WHITE

a NEW chemically resistant baking finish—

DURACHEM

For all types of metal products from heavy hardware to fine jewelry

Here is a new baking type synthetic finish for metal parts that combines unusual clarity with a high degree of chemical resistance.

Product of Maas & Waldstein Co. research, DURACHEM is almost water-white in color—and retains its clarity even after prolonged exposure to heat and sunlight. It also protects metal parts against the effects of salt spray and perspiration.

Typical applications include builders' hardware, vanity and cosmetic cases, lipstick shells and pen caps.

Where decorative color effects are desired on metal, DURACHEM can be supplied in a range of colors with the same chemical stability as the clear finish.

Samples and technical literature are available on request. Or an M & W technical consultant will discuss your requirements privately with you.

OUR 78th YEAR
PIONEERS M&WCo 1876 IN PROTECTION

MAAS & WALDSTEIN CO. NEWARK 4, NEW JERSEY

Midwest Div., 1638 Carroll Ave., Chicago 12, Ill.
Pacific Coast Div., Smith-Davis Co., 10751 Venice Blvd., Los Angeles 34, Calif.

MANUFACTURERS OF INDUSTRIAL FINISHES

Let us put more effort into paint testing instrument development, so that we can eventually have 100% instrumentation. Full instrumentation would in turn result in strict numerical values. These accurate numerical evaluations could be expressed accurately in terms of percent performance which is what we actually want to know. So far we haven't had enough faith in our own data to justify making changes. This is partly due to the fact that we can't apply a percent adhesion factor to a pocket knife test.

We must be able to tell our supplier, in the shortest possible time, in terms of percent performance, so that, if necessary, he then can intelligently complete his development which is actually for our own benefit.

Give Paint Maker Complete Information on What's Wanted

For a paint supplier to do a good devolopment job, he should know many things beforehand. He should have samples of our present results in production. He should have a copy of our specifications and he should know our exact testing procedure. We should exchange coated samples with him and, most of all, he should be allowed to make parallel tests to ours and finally compare notes concerning results of tests. We should always work with the attitude that if the paint supplier can make what we actually want, we will buy it, until one of his competitors can do more for us.

There is definitely lack of standardization in testing procedures. Someone will have to take the initiative to standardize. When sensible full instrumentation has been developed, and standardized, and a numerical grading and reporting procedure has been adopted, we will be doing less testing, but more conscientious testing. We will also be making more changes in the direction of better products and we will be working with a much smaller number of samples.

Some manufacturers are already working along these lines with their paint suppliers. It is predicted that another two years will see a paint testing package deal proposed for universal adoption.

Technical Director Appointed by Glidden Company

E. W. Weith is the new technical service director for The Glidden Company's Central Industrial Region, Cleveland, Ohio.

Mr. Weith will expedite the solution of technical problems confronting customers, and work in close supervisory capacity with Glidden laboratory and production personnel.

Mr. Weith joined Glidden in 1951. He attended Case Institute of Technology.

R. C. Mahon Company Completes Another Expansion

The R. C. Mahon Co., 6565 8-Mile Road, Detroit, Mich., has completed another expansion program to meet the demands of its rapidly growing divisions. The latest program has added 130,000-sq.ft. of factory space and 20,000-sq.ft. of office space. The firm's modern plant now provides a total of 1,300,000-sq.ft. of manufacturing, fabricating and storage space, and 132,000-sq.ft. of office space. In addition, Mahon maintains a sales-engineering office in Chicago and lists sales representatives in 95 cities throughtout the country.

1 STOP

FILLS YOUR SOLVENTS AND CHEMICALS "SHOPPING BAG"!

- Aliphatic Petroleum Naphthas
- Alcohols and Acetates
- Aromatic Solvents, Petroleum and Coal Tar
- Chlorinated Solvents
- Glycols and Amines
- Ketones and Ethers
- Naval Stores
- Oils and Fatty Acids
- Plasticizers
- Stearates
- Waxes

What you want . . . *when* you want it . . . *where* you need it . . . *with just one phone call!* That's the new "department store" way to "shop" for solvents and chemicals. It's the *modern* distribution system that saves you time, work and money.

For example, you need a variety of products in drums, tank trucks or transports. *One call fills your order* . . . you save on receiving costs and paperwork. *One order, one delivery, one invoice, one payment!*

You save on inventory, warehousing and insurance. You get top-quality products made by America's leading producers. Investigate this modern, time-saving, money-saving service. Phone your nearby Solvents and Chemicals Group Member or write

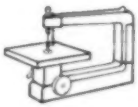
THE SOLVENTS AND CHEMICALS GROUP

2540 WEST FLOURNOY STREET, CHICAGO 12, ILLINOIS

BUFFALO, Bedford 1572
CHICAGO, SEeley 3-0505
CINCINNATI, MElrose 1910
CLEVELAND, CLearwater 1-3770
DETROIT, WAlnut 1-6350
FORT WAYNE, ANthony 0213
GRAND RAPIDS, Grand Rapids 5-9111
HOUSTON, Orchard 6683
INDIANAPOLIS, MElrose 8-1361
LOUISVILLE, Wabash 3393
MILWAUKEE, GReenfield 6-2630
NEW ORLEANS, Temple 4666
ST. LOUIS, GArfield 3495
TOLEDO, Jordan 0761
WINDSOR, Clearwater 2-0933

Here's more that Lowe Brothers THERMO SPRAFIL® system is the "hottest" news in industrial finishes today!

As a manufacturer of both hot and cold lacquer systems, Lowe Brothers have found that the hot lacquer system is rapidly becoming the *preferred system* in an increasing number of manufacturing plants. The reasons?—Faster handling and lower cost of all finishing operations. Here's a typical case history.

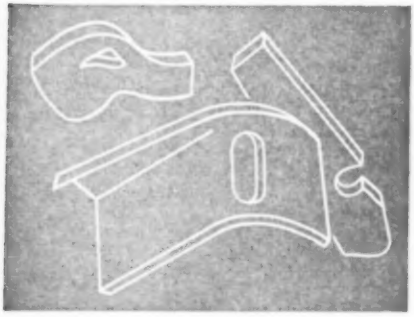


NOTE: This advertisement is based on facts from Lowe Brothers case history files.

"case history" proof

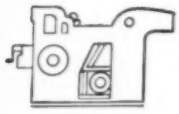
CASE HISTORY: *Thermo Sprafil System* eliminates 3 baking operations—speeds up production!

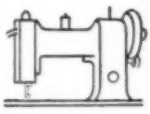
Wanting to speed the flow of heavy castings through his finishing operation, a large eastern manufacturer installed the *Thermo Sprafil* "hot" system at the suggestion of a Lowe Brothers "Finishing Specialist." Here's what happened: 1. Due to *Thermo Sprafil's* fast drying advantages, *three* separate baking operations were eliminated on every casting! 2. Sanding was eliminated! 3. All handling time and labor required to put castings through the *three* bakings were eliminated. 4. The three ovens were removed, releasing many square feet of vital factory floor space for other use. 5. Actual time required for complete finishing operation on each casting was cut from 12 to 4 hours.

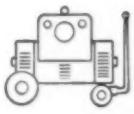


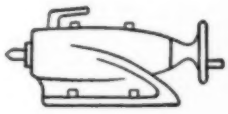
More and more manufacturers are seeing proof that Lowe Brothers *Thermo Sprafil System* provides the finest in finishing results while *eliminating* many of the costly and time consuming features of old cold lacquer systems. Get full details about the *modern Thermo Sprafil System*. Let a Lowe Brothers "Finishing Specialist" give you his recommendations based upon complete knowledge of the most up-to-the-minute finishing developments. No obligation. Why not write for more information today?

THE LOWE BROTHERS COMPANY • Dayton 2, Ohio
Industrial Division
District Offices:
Atlanta, Boston, Chicago, Jersey City, Kansas City









***Thermo Sprafil* is saving money and speeding production for manufacturers of a wide range of products. How about yours?**

North American Aviation "FJ-2 Fury" Navy Jet Fighter.

Painting Military Planes

ALL MILITARY PLANES must pass through the paint hangar, but not all of these planes are given a color coat; however those that do not receive a color coat are numbered and insignia are applied.

At one end of this huge room, planes brought in for modification are stripped, cleaned and prepared for this work. All of this work can proceed simultaneously without damaging effects on spray operations. If you are wondering how this is possible, you will readily understand after I have given you the facts and figures on this unusually large finishing room.

The paint hangar is 315-ft. long, 150-ft. wide and 30-ft. high, making a total of 1,417,500-cu. ft. Both ends of the building, across the 150-ft. width, have power driven up-and-over doors so that planes may enter and leave the hangar at any point.

Hanger Has Excellent Ventilation and Lighting

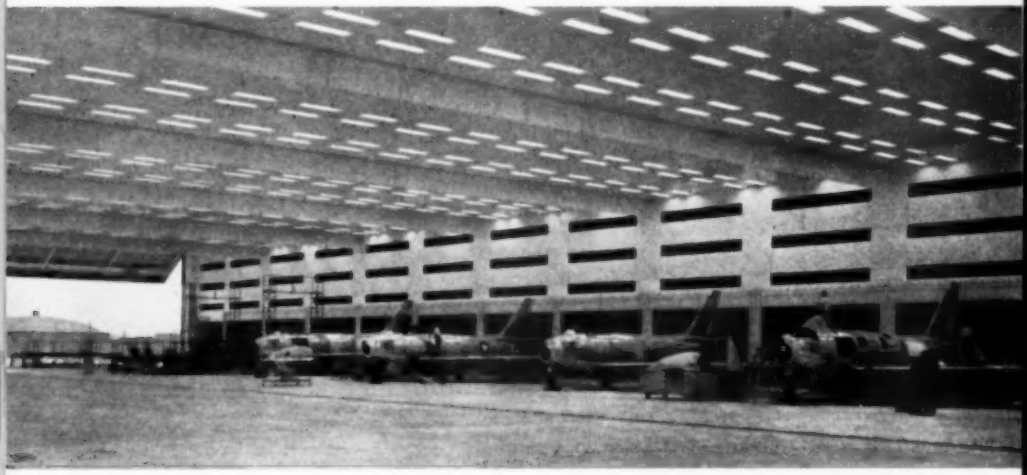
One entire wall, along the 315-ft. length of the hangar, is composed of filters through which 14 fans, each having a capacity of 93,000-c.f.m. brings 1,302,000-c.f.m. of fresh air into the hangar. The opposite wall (parallel to the filter

By D. M. GOLDING, General Foreman of Final Paint
North American Aviation, Inc., Columbus Division

wall) is composed of a continuous series of water curtain spray booths.

Fourteen fans, each having a rated capacity of 50,000-c.f.m. exhaust 700,000-c.f.m. of air through the water curtains. Above the water curtain spray booths, there are exhaust ducts serviced by another 14 fans, each having a rated capacity of 50,000-c.f.m., which exhaust approximately 700,000-c.f.m. of air from the room. The total input of fresh air in the paint hangar is 1,302,000-c.f.m., and the total air exhausted through the water curtain spray booths and the duct system is something like 1,400,000-c.f.m. This provides a complete air change in the paint hangar every 60 seconds.

The entire hangar is adequately lighted by fluorescent lamps recessed into the ceiling. All interior



Above: At right are water curtain spray booths . . . with a system of exhaust ducts above.

Below: The wall back of these planes includes filters through which fresh air is drawn by fans.

surfaces of the paint hangar, even the "filter wall," are painted a light cream grey which provides excellent light reflection.

Paint Mixing Room; Lacquer Thinner Wash; Masking

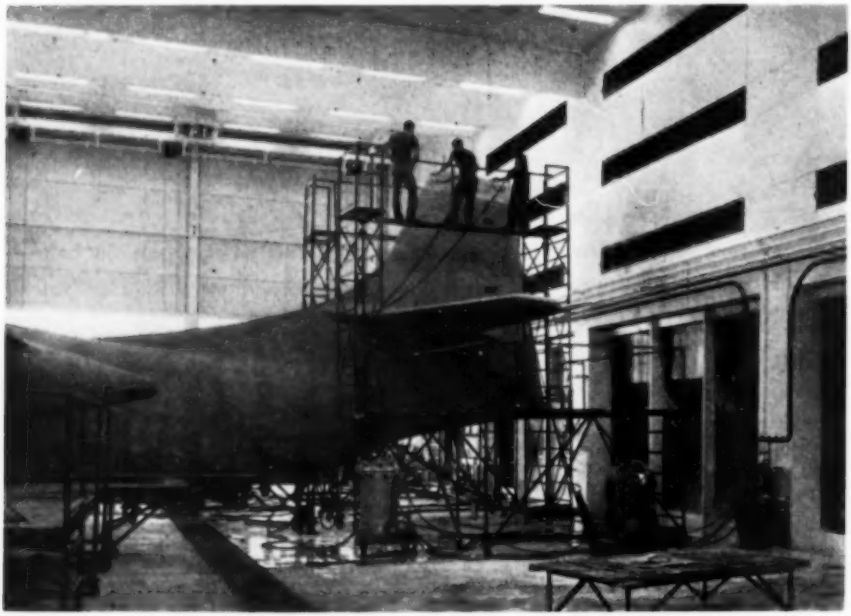
All pigmented lacquer and zinc chromate are brought into the paint hangar through a piping system from the central paint mixing room. Paint materials are pumped into sealed storage tanks from which pressure tanks are filled.

It would be impractical to attempt to list the various models of planes which receive color coats, zinc chromate, etc. For example, Navy planes require a blue coating.

Portable scaffolds are used by operators who wash the entire plane surface with lacquer thinner to remove any oil, finger marks and dust. Next, certain parts of the plane are masked with pre-cut to size and shape paper held in place with masking tape, and pre-cut-to-shape pressure sensitive tape.

Zinc Chromate Primer; Blue Lacquer; Numbers, Insignia

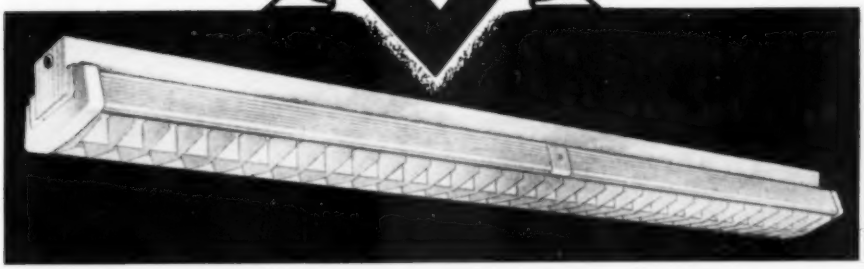
The entire surface is first given a spray coat of zinc chromate. This is allowed to air dry; then blue lacquer (30% solids) is sprayed on the surface. Atomizing pressure used is 60-lbs., and fluid pressure is 20-lbs. The material and air hose lengths vary from 25-ft. to 60-ft. long. The lacquer coat is allowed to air dry for about four hours before numbers and insignia are sten-



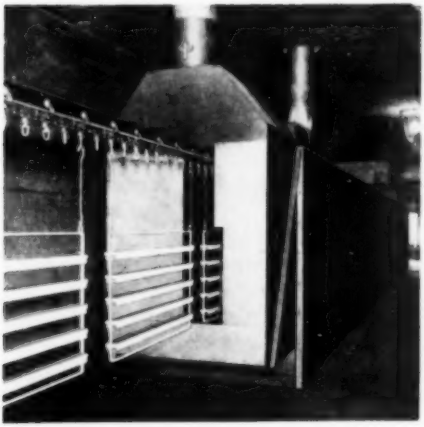
Portable pressure tanks and steel scaffolds are used in connection with finishing large planes.

Here's a Real

VIRDEN VALUE



in this MODERN "Streamliner" LIGHTING FIXTURE



ENAMEL DRIED IN A CONTINUOUS LANLY FINISHING OVEN

Eye appeal and product "Sale-ability" of this attractive Virden fixture are greatly enhanced by the smooth, lustrous coating of white synthetic enamel on certain component parts.

Drying is rapidly and economically accomplished in a LANLY gas-fired, continuous oven at 300 degrees F.

Precise, volume production is a routine matter at Virden.

YOU, TOO, CAN DO A BETTER JOB WITH LANLY OVENS

Write today for details and let us show you how!

LANLY FINISHING OVENS
THE LANLY COMPANY • 760 PROSPECT AVE
CLEVELAND, OHIO

HOW DO YOU PUT
A HEAVY PHOSPHATE COATING
ON 90 MM. SHELLS?

HOW CAN WE GET
BETTER ELECTROCLEANING
AT LOWER COST?

Our 200 Oakite Technical Service Representatives answer questions like these every day. We thrive on questions about tank cleaning, machine cleaning, electrocleaning, pickling, preparation for painting, paint stripping, steam-gun cleaning, burnishing, rust prevention and related subjects.

Send us your questions on metal cleaning. There's no obligation. We'll be glad to advise you the best way we can.

FREE Also ask for our 44-page illustrated booklet "*Some good things to know about Metal Cleaning.*" Just write to Oakite Products, Inc., 32F Rector St., New York 6, New York.

SPECIALIZED INDUSTRIAL CLEANING
OAKITE
MATERIALS • METHODS • SERVICE

Technical Service Representatives Located in Principal Cities of United States and Canada

Applying numbers and insignia on airplane.

ciled on the surface. Some decals are used, and these are applied at this time. Final inspection is made before the plane leaves the paint hangar.

Planes brought in for modification are stripped and cleaned up before modifying operations are performed. Upon completion, these planes are returned to the paint hangar to move through the same operations as new planes.

The finishing of planes is not too unlike the finishing of other products, except that extreme care must be exercised to follow definite and rigid specifications, both in the materials used and the workmanship. There are no extras on these fighter planes and bombers; everything on them, even the finish, must contribute something specific and important to their performance.

Phosphate Primer Coat Removed Quickly

A MISUNDERSTANDING of specifications recently led to a quick and easy solution of the problem of removing zinc phosphate primer coatings from steel pieces which had resisted all ordinary means of getting this primer coating off.

A customer of an enameling shop had ordered a priming coat to be put on cup-shaped steel pieces. Through a misunderstanding, the shop coated only the outsides of these cups, leaving the insides untouched. A large quantity of pieces was primed and coated before the necessity of priming the inside surfaces was called to the attention of the enameler. He was then faced with the job of stripping the finished cups prior to any repriming and repainting.

The outside coating on the exterior of the cups came off readily with the alkaline paint remover used in this shop, but the phosphate primer proved very stubborn. It resisted not only this alkaline remover, but emulsified solvent cleaners, acids and every kind of stripping material tried.

They were using a material that is designed to provide a light phosphatizing solution which also works as a rust remover. The shop superintendent, after trying to remove the prime coat, decided that it was on the cups to stay, and therefore put a batch of cups into a phosphatizing solution to give them a light etch, prior to an all-over phosphate priming. [*To page 42*]

N.C.Co.

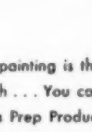
METALPREP
GALVAPREP
LYFANITE
PREP-PIK-L
PREP-N-COTE

Metal Conditioning Rust Removing Phosphatizing products for STEEL, ALUMINUM, ZINC, CADMIUM, etc.

● Proper metal preparation before painting is the foundation of your high quality finish . . . You can accomplish this end result by using a Prep Product that is designed and formulated for your requirements . . . Check with us and we will recommend a Prep Product that will give you superior results at present cost or equal performance at lower cost.

Send for Bulletin

● We have available the materials and processes for any Government Specification relating to metal treatment.



NEILSON CHEMICAL CO.
MANUFACTURERS OF METALPREP

2682 Tecumseh Road Windsor, Ontario | 6562 Benson St., Detroit 7, Mich. | 3411 Union Pacific Ave. Los Angeles 23, Calif.

Then it developed, that the old prime coat rolled right off the pieces in this solution. The entire lot of rejects was quickly stripped.

This treatment opens up an easy solution to the problem of removing phosphate primers. The phosphatizing solution, used in a hot tank, readily removes the prime coat and leaves the metal in excellent condition for any required finishing operations.—*Magnus Chemical Co., Inc.*

Apply Your Paint at Uniform Temperature

MUCH EMPHASIS has been put on the application of hot paint to deposit more solids on the surface, and to obtain better control of viscosity. Both are excellent reasons for installing a paint heater in the line to heat the material before it is sprayed on the surfaces of products. But what about those plants which, for one reason or another, do not use paint heaters? They are urged to have a warm room during cold weather. A cold finishing room or cold paint cannot possibly produce a good finish.

What about these same plants during the hot summer months? With perhaps the heat and humidity loss from a power washer added to the heat loss from dry-off and bake ovens, the finishing room temperature may approach 100° F. on a hot summer day. The temperature of the paint will soon be close to the room temperature.

If paint has been formulated for application at a viscosity of a specified number of seconds at

tough stripping problems?

USE **ECONOSTRIP**

The New Low Cost Paint Stripper

REMOVES THOSE SO-CALLED "IMPOSSIBLE-TO-STRIP" FINISHES IN A MATTER OF SECONDS

- Remarkably effective for removing EPONS, Enamels and Lacquers.
- Will not harm aluminum and other soft metals.
- Will not remove phosphate coatings.
- Easy to use in dip tank or in conveyorized stripping systems.
- Economical because it is low in cost—lasts longer—does more jobs per gallon.
- Recommended by leading finish manufacturers.

For individual needs Beck Laboratory facilities are available for formulating custom made strippers. Write today for detailed information.

SEND FOR FREE BULLETIN

BECK EQUIPMENT COMPANY

Custom Made Strippers For Every Need

3350 WEST 137th STREET • CLEVELAND II, OHIO

say 78° F., and if this paint gets close to the room temperature of 100° F. or more, its viscosity will be just as much out of control as it is when it is being used in a cold room during winter time.

This condition can be corrected by installing paint heaters in which paint formulated for high temperature application is heated to 150° to 175° F.

If for some reason paint heaters are not available or desired then the spray room can be closed off and air conditioned to maintain a uniform temperature in the middle 70s.

For flow coating application, the paint may be circulated through either a cooling unit or heat exchanger to keep it at a uniform temperature.

Quality finishes can only be produced where viscosity of the coating material is constantly under absolute control.

Enthone Renames Compound 42; Calls It "Enthol"

"Enthol" is the new name of the Enthone, Inc. product formerly known as Enthone Compound 42, an acidic solvent type cleaner.

It is used for the combined cleaning and phosphating of iron, steel, zinc, and aluminum surfaces prior to application of any paint or finishing material.

Enthol may be used as a wipe-on, brush-on or spray-on material. It may also be applied in diluted form by immersion. No precleaning or after treatments are required.

Enthone, Inc. is located at 442 Elm St., New Haven, Conn.

Production Supervision to Be Studied at A.M.A. Seminars

The supervisor's role in cost reduction, personnel administration, labor relations, employee training, and company communications will be studied in a series of seminars to be conducted by the American Management Assn. this fall in Buffalo, Chicago and New York.

Designed to help manufacturers develop better supervisors, the meetings will start in October. Details may be obtained by writing Seminar Registrar, American Management Assn., 330 W. 42nd St., New York 36, N. Y.

IT'S HIGH TIME
YOU USED
LOW
COST
UNIVERSAL
METAL LACQUER
R 3185
Outstanding adhesion to all metal surfaces. Excellent build and toughness. Can be used as vehicle for aluminum and bronze powders. Send for samples.
SEA-LAC
DURALAC CHEMICAL CORP.
84 LISTER AVENUE, NEWARK 5, N. J.

NEW PAINT STRIPING IDEA... Works Faster, Easier, Better!

MASTER PAINTERS' STRIPING TOOL

Easy to Use as a Fountain Pen

Men in every branch of industry now rely on Master Painters' Paint Striping Tools to aid in turning out cleaner work in a fraction of the time and with a fraction of the effort.

This amazing tool paints straight or curved lines with equal facility. No smears or smudges. Uses any kind of paint, enamel or lacquer. Newest model paints DOUBLE parallel lines . . . wide or narrow or both —*with one operation*. Does a big job in large or small shops.

Write for PICTURE FOLDER with prices and descriptions — all sent FREE.

USE FOR STRIPING

• Furniture • Wallboard • Toys • Bicycles • Signs • Scoreboards • Ceramics • Lampshades • Autos

— anything and everything that requires clean, accurate striping with paint, enamel or lacquer.

FREE ENGINEERING SERVICE

If you have any paint striping problem, our staff of experts will be glad to cooperate with you. No cost or obligation.

WENDELL MFG. CO. 4234 N. LINCOLN AVENUE Dept. 99 . CHICAGO 18, ILL.

Adrian D. Joyce Has Died

Adrian D. Joyce, who transformed ideas into thousands of jobs and created The Glidden Co., one of America's great industrial enterprises, died recently at his home in Shaker Heights, Ohio. He was 81.

Mr. Joyce was sales and distribution manager and director of another paint manufacturer in Cleveland in 1917 when he quit his job to embark on his own business. He was 45, successful, relatively wealthy and secure. But he was not content and he had definite ideas about how a paint company should be operated.

He sold his stock, mortgaged his home and bought a small concern called The Glidden Varnish Co. It took every cent he could muster.

That year, renamed The Glidden Co., the concern sold $2,000,000 worth of paints and varnishes. In the 1953 fiscal year, only 36 years later, sales of The Glidden Company were more than $211,758,000.

Today the Glidden Company has 40 operating units and 28 laboratories located from coast to coast. It is a carefully balanced, diversified, and yet completely integrated concern of six major product divisions.

Mr. Joyce was married in 1897 to Anna Page and they had four children. The eldest, Dwight Page Joyce, was elected president of The Glidden Co. in 1947.

The first Mrs. Adrian Joyce died in 1938. In 1941 Mr. Joyce married Mrs. Mary D. Broughton, who survives him.

John T. McCafferty Promoted by Jones-Dabney Company

John T. McCafferty has been appointed Divisional Sales Manager of the Eastern District of the Jones-Dabney Co., division of Devoe & Raynolds Co., Inc., at Newark, N. J.

In this new capacity, Mr. McCafferty will be responsible for supervising sales of Jones - Dabney industrial finishes from the Newark Plant where a completely diversified line of enamels, varnishes and lacquers is produced.

Prior to his new appointment, Mr. McCafferty represented Jones-Dabney in the sale of industrial finishes in Wisconsin for the past six years.

Glidden Creates Department for Marine Paints

The Glidden Co. has created a national marine department to market a complete line of paints for the merchant marine. Manager of the new department is Raymond P. Devoluy, 52 Vanderbilt Ave., New York. Other marine sales offices are at New Orleans, San Francisco, St. Louis and Reading, Penna.

Finishing Ovens Brochure

An 8-page brochure on finishing systems for baking and drying all types of industrial equipment is offered by the Michigan Oven Co., 415 Brainard, Detroit 1, Mich.

The brochure outlines features to look for when purchasing a finishing oven and include six case histories showing how various manufacurers solved their finishing problems effectively. Additional information is included which will be of value to anyone contemplating the purchase of a finishing oven.

You Protect Your Reputation When You Protect and Beautify Your Product With

NIKOLAS

Fixture Illustration Courtesy H. A. Framburg & Co.

QUALITY FINISHES

The Choice of Leading Finishers and Manufacturers

SINCE 1890

With Nikolas Industrial Finishes, you can be assured of Quality Products with Guaranteed Uniformity. High solids, Low viscosity produce additional coverage that can actually show savings compared to finishes selling for 50% less. Why jeopardize your reputation with inferior finishes when the finest cost no more?

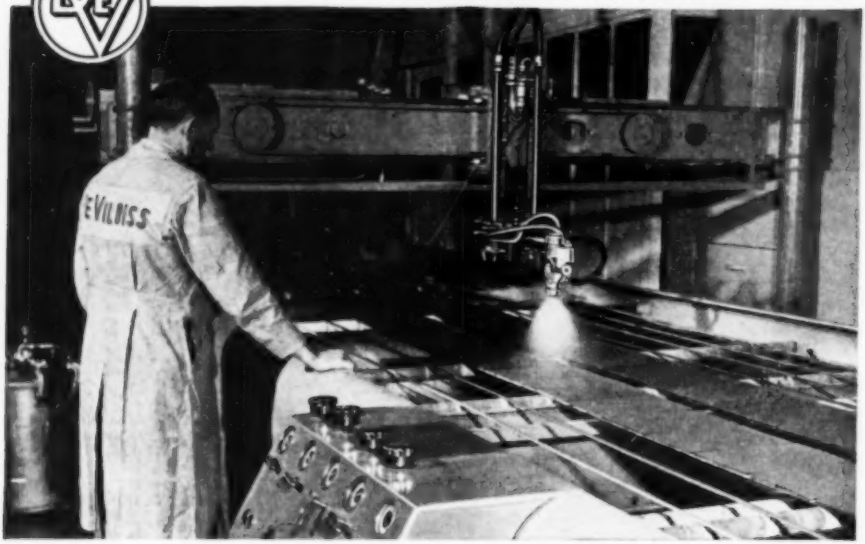
CLEAR METAL & WOOD LACQUERS • LACQUER ENAMELS
SYNTHETIC COATINGS (Baked or Air Dry—Clear Transparent Colors or Enamels)
NOVELTY FINISHES

For Information, Samples and Recommendations, Write, Wire or Call!

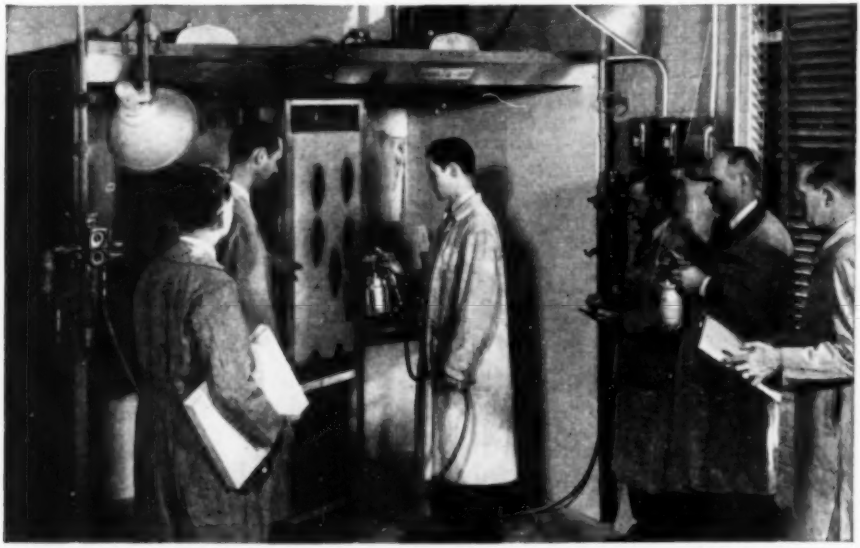
NIKOLAS
SINCE 1890

G. J. NIKOLAS & CO., Inc.
2850 WASHINGTON BLVD., BELLWOOD, ILL.
33 GRAND ST., BROOKLYN, N. Y.

Here's what we



***DeVilbiss Research Engineer** works out most efficient means of painting a customer's product on an automatic machine.*



***Spray Painting School**—Painters and supervisors learn the latest spray methods and proper techniques in one-week courses at the tuition-free DeVilbiss School.*

mean by

"For better service, buy DEVILBISS"

Besides a complete line of precision-made spray-painting equipment, DeVilbiss offers you a host of services that help you get the most out of these products.

Take DeVilbiss Research, for example. Our engineers work in modern laboratories with complete experimental facilities. They meet industry's constant demands for the solutions for spray-applying all types of coatings to all kinds of products.

DeVilbiss Production Service is another aid that puts experienced technicians at your disposal in your plant. These field representatives analyze your facilities and make recommendations to improve your production. Then they supervise the installation of equipment and train your operators on the job.

If you are in any way responsible for a finishing or other coating operation, it will pay you to find out how DeVilbiss Research, Production Service, and many other DeVilbiss Services, can benefit you. For information, contact your local DeVilbiss supplier, our branch office or factory.

For lower costs and higher profits, take advantage of these other DeVilbiss Services:

Rebuilt Exchange Service — Assures added life, prolonged efficiency to all users of DeVilbiss spray guns and compressors.

Training Films — Teach your employees the use and care of spray equipment.

Service Parts — Carried in stock at key points from coast to coast.

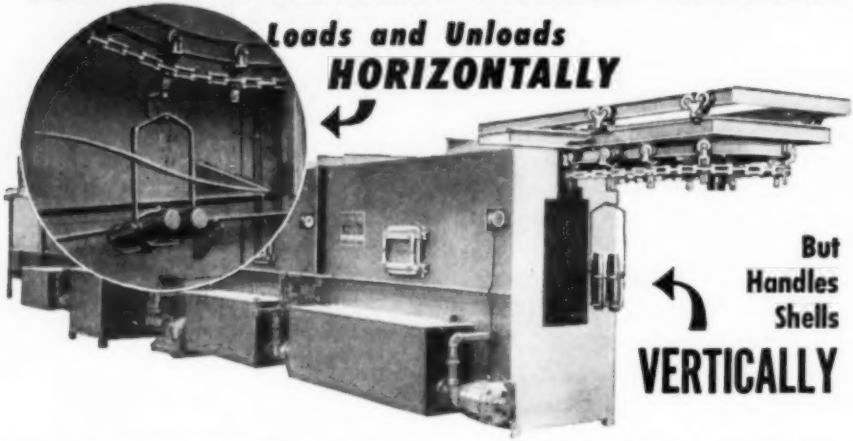
THE DEVILBISS COMPANY
Toledo, Ohio

Barrie, Ontario • London, England
Santa Clara, Calif.

FOR BETTER SERVICE, BUY
DEVILBISS

BRANCH OFFICES AND DISTRIBUTORS IN PRINCIPAL CITIES
THROUGHOUT THE UNITED STATES, CANADA AND THE WORLD

NEW ALVEY-FERGUSON 5-STAGE COMPLETE PHOSPHATE PROCESS MACHINE



BECAUSE a vertical position in the finish-cleaning operation assures a more uniform spray coverage and more complete drainage—

. . . BUT a horizontal position at the loading and unloading stations permits the operator to slide the 120 M M shells to and from a storage table or belt conveyor into—and out of — the trolley conveyor attachments without lifting the shells . . . . . Alvey-Ferguson designed this Phosphate Processing Machine with Special Hinged Type Fixtures which speeds up the cleaning and surface-preparation-for-paint operations to 360 shells per hour.

Alvey-Ferguson Engineers solve many tough-to-crack-problems in the metal products cleaning field. May we help you to solve yours? Write without obligation—today.

ALVEY-FERGUSON

Cleaning and Finishing Machines

The Alvey-Ferguson Company

747 Disney Street — CINCINNATI 9, OHIO

WEST COAST PLANT — 760 N. Georgia St. — Azusa, California

Offices or Representatives in Principal Cities

Fouling Ovens

BY NORMAN I. GAYNES

Some causes of and several remedies for fouled ovens, in connection with baking paints and finishes on metal surfaces, as observed by a practical and experienced man in the shop.

AS THE DOORS of the large convection oven swung open, the finishing foreman felt suddenly ill. The truck load of sprayed pieces, which previously had appeared so glossy and smooth, were now wrinkled and dull. The fouled oven, which over the years has proved to be one of the most vexing and frustrating problems confronting metal finishers, had spoiled nearly all the production of one half day.

For the most part, the condition which occurs in large closed ovens, as differentiated from the open type infrared or strip heater, is traceable to the operating layout and construction in the individual plant. The tremendous rise in chlorinated solvent degreasing, without sufficient thought and planning as to subsequent reaction, is probably the greatest offender.

Chloride Fumes From Stripping, Degreasing

Chloride fumes, even in small unnoticeable proportions, can and do cause wrinkling and fouling. Methylene chloride base paint strippers are another source of the annoying chloride fumes.

In most plants, it is usually found that degreasing and stripping are done in the same general locale as the baking ovens. On the surface, from a production standpoint, this may seem to be necessary. However, a few spoiled batches, with their high cost of stripping and refinishing, will point to the short sighted view of this approach.

Where practical, degreasing and stripping should be done in a room separate from the actual spraying and baking operations. Some plants, because of size and other restrictions, cannot adopt this solution to the problem. In these instances an increase of air circulation in the baking oven may alleviate this situation. However, let it be noted that the air intake should be from an outside source, and not drawn from within the plant itself.

One large zipper manufacturer recently was forced to redesign

completely an automatic spraying and baking conveyor—using strip heaters as the baking medium in order to overcome the fumes from a nearby plating room which caused batch after batch to be spoiled. This drastic action could only be recommended where it is found that the product being finished can be adapted to strip heater radiant heat. Before resorting to this step, expert opinion should be consulted as to its advisability and adaptability.

One of the oldest temporary methods of removing foulness or contaminated air from baking ovens is the use of such salts as sodium carbonate, spread on the floor of the oven. Any hydrochloride vapors passing over the sodium carbonate are neutralized, leaving non volatile sodium chloride as a residue which can be swept out.

Finish Manufacturer's Remedy; Change of Solvent, if . . .

The most reliable method of purifying oven foulness has been recommended by many manufacturers of industrial finishes. Diethylamine [a selective solvent] in amounts up to 12-oz. per gallon of paint, used in combination with or as a replacement for the usual xylol or toluol reducers, will generally eliminate wrinkling of the baked enamel. Morpholine is another compound [or solvent] in the amine group which reacts in the same manner.

These solvents depend on the ammonia release from the amine* portion to react with the contaminating chloride fumes. One danger in the indiscriminate use of these chemicals as a cure-all, is the yellowing of pastel finishes which an overdose will exhibit.

It is sometimes possible, if production schedules permit, to spray dark materials using the amine solvents, and place them on the lower portions of the oven truck. The pastels, with little or no amine, are then placed on the upper portions of the truck and baked. This plan has worked successfully in one plant for some time.

It can be seen that the fouled oven problem has been lessened, if not solved completely. Temporary experients, which have been mentioned, are aids but not complete cures. There can be no substitute for a well planned equipment installation.

*Amines are ammonia derivatives.

Edward J. Sobota to Represent National Lacquer & Paint Co.

Edward J. Sobota, well known in the finishing materials and equipment fields for many years, has been appointed sales representative for the National Lacquer & Paint Co., Inc., 7415 S. Green St., Chicago 21, Illinois. He will cover Ohio and Michigan, with a full line of hammer, wrinkle, and enamel finishes, as well as wood and metal lacquers, primers, surfacers and thinners.

With headquarters in Toledo, Mr. Sobota will be centrally located to serve his many friends in the territory. His address is 4537 N. Lockwood, Toledo 12, Ohio; phone Lawndale 2215.

Management Meeting Sept. 27-29

Ways of gearing the personnel program to a competitive economy will be the theme of the American Management Association's fall personnel conference Sept. 27-29 at the Hotel Astor, New York. More than 1000 personnel and labor relations executives from all parts of the United States and Canada are expected to attend the meeting, first of a dozen large-scale national conferences to be conducted during the current fiscal year by the 19,000-member management educational association.

3-ZONE CONVEYORIZED FINISHING OVEN

Important operating economies are among the many distinctive features of this 3-zone automatic conveyor oven. Exhaust gases from the baking zone are utilized efficiently for work pre-heat. High velocity outside air, used in the cooling zone and there raised in temperature, is employed as pre-heated make-up air for the air heater.

Like all **IOI** *Equipment this installation is characterized by:*

- **Sound Engineering**
- **Expert Workmanship**
- **Operating Economy**
- **Maximum Investment Return**

This same system can be employed in many industrial oven applications.

***If you have a problem in this field it will pay you to consult* IOI.**

- PAINT BAKING OVENS, BATCH AND CONVEYOR
- WELDING ROD DRYERS
- LITHOGRAPHING OVENS
- ARMATURE BAKERS
- CORE AND MOLD OVENS
- HEAT TREATING OVENS
- ROD AND WIRE BAKERS

INDUSTRIAL OVENS, INC.

13821 TRISKETT ROAD CLEVELAND 11, OHIO

AUTOMATIC FIRE PROTECTION
For production painting

BY OAKLEY W. COOKE

WHEN A COMPANY is primarily dependent on one major piece of equipment to sustain production, the protection of that machine against loss or damage is vitally important. The problem of "down time," with its attendant loses, is of real importance. Secondary is the possibility of total or partial loss of the investment in the machine itself.

This problem becomes more complicated if the loss or damage could result from a fire hazard inherent to the piece of equipment. With fire, the possibility of injury to employees is introduced, while damage to the entire plant also must be considered.

This was the problem that faced the Carrier Corporation's Thompson Street plant (Syracuse, New

This representative explains to the fire marshall that both the main and reserve banks of carbon dioxide cylinders (at left) for the flow coat machine's automatic fire extinguishing system, also can be actuated manually by the pull boxes. The system's fire alarm siren is mounted on the upper left of the electrical panel board. Note the carbon dioxide portable for first aid fire fighting in the paint room. Photograph, courtesy of Walter Kidde & Co.

....before Northwest developed Acid Solvent Emulsion Cleaner #1."

Got a Problem? "Let our Cleaning Specialists" help you!

Northwest's Acid Solvent Emulsion Cleaner No. 1 completely and quickly removes soil from aluminum parts, preparing the surface for plating, painting, anodizing, zinc chromate priming or other finishes.

It is fast cleaning, easily rinsed and controlled, readily-emulsified, and economical. Non-toxic, non-corrosive to equipment; non-injurious to the metal regardless of immersion time or bath temperature.

Northwest's production-tested chemicals and "Right the first Time" recommendations will save you money.

Remember —YOUR COST PER FINISHED ARTICLE IS THE TRUE COST OF YOUR CLEANER

NORTHWEST CHEMICAL CO.

9310 ROSELAWN DETROIT 4, MICH.

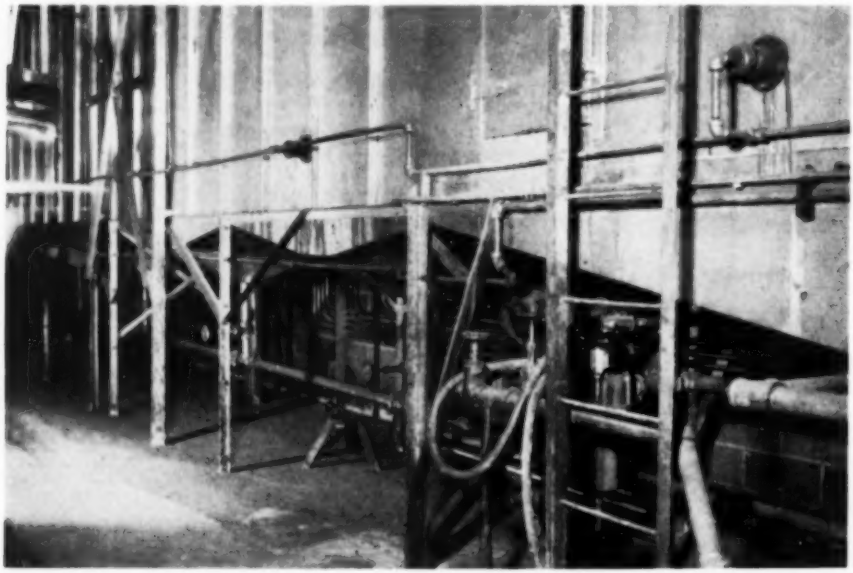
pioneers in pH cleaning control *serving you since '32*

York) when it installed a huge flow-coating machine. While Carrier has numerous paint spray booths, much of its production that requires painting is passed through the flow coater. Everything from small wheels to large cabinets is processed by this piece of equipment which uses a mixture consisting of four parts of alkyd-melamine synthetic baking enamel and one part xylol thinner. Operation of the machine is semi-automatic, with enamel being drawn from its 300-gallon tank and mixed with the thinner from its 300-gallon tank at the rate of 2½ quarts per minute.

Carrier takes every precaution to minimize the hazard of fire in the paint room. "No Smoking" is strictly enforced. Scientific ventilation whisks away vapors as quickly as they develop. All equipment is grounded and electrical components are of explosion-proof type. The flow coater is cleaned daily, and thoroughly washed monthly. Finally, the area has a multitude of portable carbon dioxide extinguishers ready for first aid fire fighting.

Air, Flammable Liquid, Plus Ignition Produces Fire

Carrier executives knew that when air and a flammable liquid are present, all that is needed to turn the orderly production sequence into a roaring inferno is an ignition source. Taking no chances, Carrier turned over this problem to a nationally known firm that manufactures and installs fire-ex-



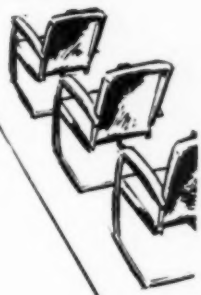
Side view of the flow coat machine reveals two of the Multijet carbon dioxide discharge nozzles flanged into the equipment's housings. The nozzle at right enters the flow coat area, while the one at left is at the drain area. Photograph, courtesy of Walter Kidde & Co.

UNITED CHROMIUM DEVELOPS...

First practical sprayable

Plastisols

with no sag even at 25 mils!



With Unichrome Series 5300 Plastisols, any metal product which can be uniformly baked can now get the unusual combination of properties in these sprayable, thick-film 100% solids vinyl finishes.

Namely: Great resistance to corrosion . . . a resilient, shock-absorbing coating which you can control up to 25 mils thick if desired . . . rich, satin-lustrous eye-appeal . . . tough, abrasion-resistant, non-chipping or cracking protection and decoration.

A pioneer in the field of plastisol coatings, United Chromium has many formulations to meet many needs. Send for Bulletin VP-1.

UNICHROME **COATINGS FOR METALS**

. . . unique coatings to meet unusual requirements

UNITED CHROMIUM, INCORPORATED

100 East 42nd St., New York 17, N. Y.
Detroit 20, Mich. • Waterbury 20, Conn.
Chicago 4, Ill. • Los Angeles 13, Calif.
In Canada: United Chromium Limited, Toronto 1, Ont.

No, you're not looking down; you are looking up and into the entrance of conveyorized flow coating machine which is protected by a carbon dioxide fire extinguishing system. Notice the fire detector at left of conveyor track, near middle of picture.

tinguishing equipment. This company's engineers designed a built-in carbon dioxide fire extinguishing system for the flow coater.

Many advantages stem from the use of carbon dioxide for this type of protection. In addition to its fire smothering characteristics, being an inert gas it cannot damage work-in-process, the flow coat machine or its electrical equipment, and as this fire-smothering gas eventually dissipates into the atmosphere following discharge, it leaves no mess to be cleaned up. Result: Production can be resumed with a minimum of delay.

Automatic Fire Extinguishing System Works This Way

Here's how the system works. Should fire flash, temperature-rate-of-rise fire detectors mounted in the machine immediately trip five 50-lb. cylinders of the fire smothering gas. Under its own pressure the gas floods from its containers and passes through piping to the machine

TOUSEY PRODUCTS

DURACITE for DURABILITY

Color matching at Tousey is most important in the production of high quality finishes. ★ Each order is manufactured to an exact formula and compared to a material standard for preliminary approval ★ A final check is always made by men with years of experience in color matching, men with the ability to note even the slightest variation from the original, and proper training in how to correct it ★ This experience and know-how is available to help you solve your finishing problems without obligation

TOUSEY VARNISH CO. 520 W. 25th St., Chicago 16, Ill.

where it is discharged from Multi-jet nozzles flanged into the housings of the flow coater chamber and the drain tunnel. The inert gas reduces oxygen to a point insufficient to support combustion and the fire is virtually smothered.

Built into the system are pressure operated switches which are actuated by the passage of gas through the piping. They cause power for the machine and the paint pumps to be shut off. Ventilation equipment is also stopped and an audible alarm sounded. It is interesting to note that Carrier adapted this equipment so that if the flow coater's forced draft ventilation system fails (no fire involved) the machine also stops and the alarm sounds.

Housed in the same wire cage enclosure containing the basic carbon dioxide cylinders is a reserve set. By means of pull boxes mounted on the enclosure, either the primary or the reserve charge can be manually actuated.

Editor's Acknowledgment: Story and pictures were supplied through the cooperation and courtesy of Public Relations Dept., Walter Kidde & Co.

Free Spray Painting School in Chicago, Oct. 4-8

Learning the **how** and **why** of spray painting is profitable, comprehensive and free at the School of Spray Painting conducted each month by the Binks Mfg. Co.

The second class in the current Fall session will be held Oct. 4 through Oct. 8 at the company's main plant in Chicago. Applications for the free course should be made as far in advance as possible by writing to Mr. E. F. Watts, Binks Mfg. Co., 3116 Carroll Ave., Chicago 12, Ill. This is important because classes are kept to a maximum of 25 to insure more personalized attention.

The course is conducted by William Beacham, nationally-known paint chemist and spray painting authority. He is also Director of the Binks Research Department. Special quarters have been built to house the school. The latest audio-visual aids are used in the instruction.

Those taking the course learn by actually doing. One part of the program requires that the student take apart a spray gun, re-assemble it and then conduct tests to see that it is in proper adjustment. Defects which are encountered in actual production finishing are deliberately produced and the students are required to analyze the fault and then to correct it.

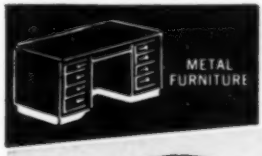
The operation of paint circulating systems, fluid handling pumps, oil and water extractors, flocking equipment, compressors and all auxiliary equipment is included in the curriculum.

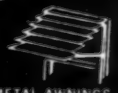
Udylite Names Sales Engineer for Detroit Area

The Udylite Corp. has appointed Jack H. Senger as sales engineer in the Detroit area. Mr. Senger has been with the company's plastics division for 1½ years. He will work out of the Detroit office at 1651 E. Grand Blvd.

Pennsalt Names New Southern Sales Representative

Cooper M. Schley has joined the sales staff of Pennsylvania Salt Mfg. Co. With headquarters in Birmingham, Mr. Schley will represent the metal processing and maintenance chemicals departments in the company's southern territory. He will handle Pennsalt's Fosbond - Foscoat products for the metal-working industries and a diversified line of metal cleaners and maintenance chemicals serving the transportation and manufacturing fields.





SPRAYON "PUSH-BUTTON" TOUCH UP

touch up your products anytime, anywhere... factory-perfect job every time!

YOUR OWN FINISH FROM YOUR OWN SOURCE

In use by industrial leaders in every field, the Sprayon Self-Spraying Touch Up Tool ends your touch up problems. Protect the eye-appeal of your product—get an extra bonus of customer satisfaction—and do it with big savings in time, cost and equipment investment! Sprayon goes right to your source for your own touch up finish, custom-loads the Tools for you under your own label. Exclusive Sprayon features mean even unskilled help do a factory-match job in minutes...for pennies. Use it anywhere—from your own production line to the final customer. Nothing else to buy—it's a disposable low-cost constant-pressure spray gun—a complete paint shop in a can!

WRITE TODAY FOR YOUR FREE "PUSH-BUTTON" FOLDER

SPRAYON PRODUCTS, INC.

2075 EAST 65 STREET
CLEVELAND 3, OHIO

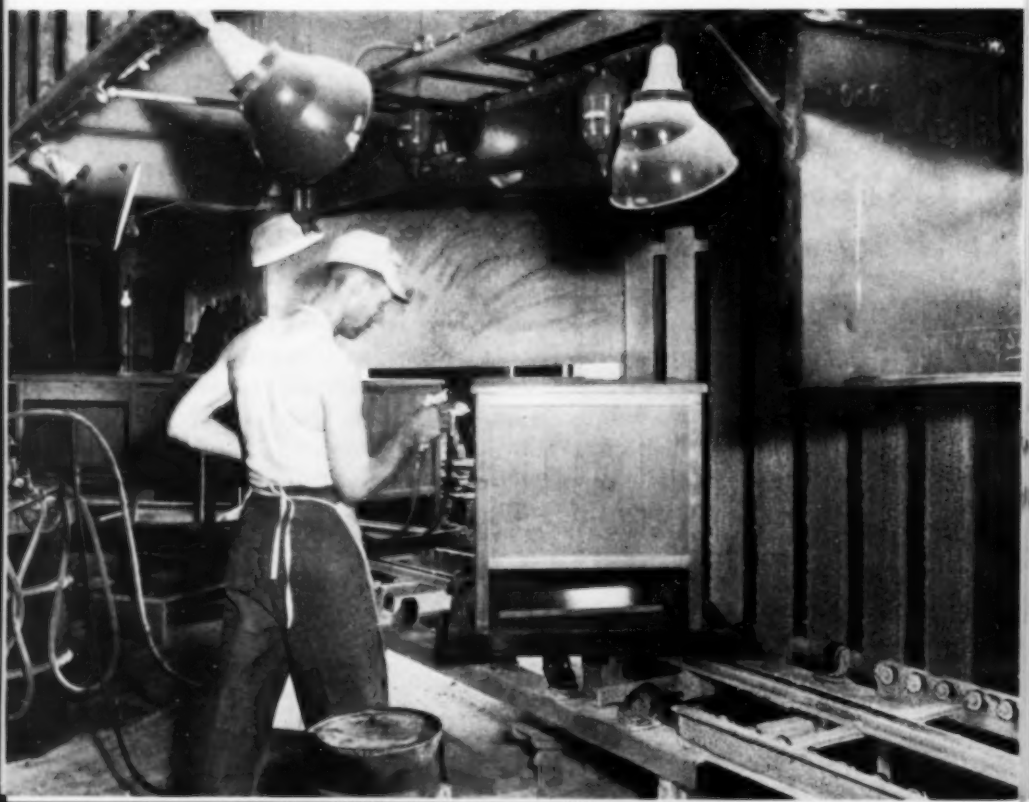
SPRAYON *Self Spraying* TOUCH UP TOOL

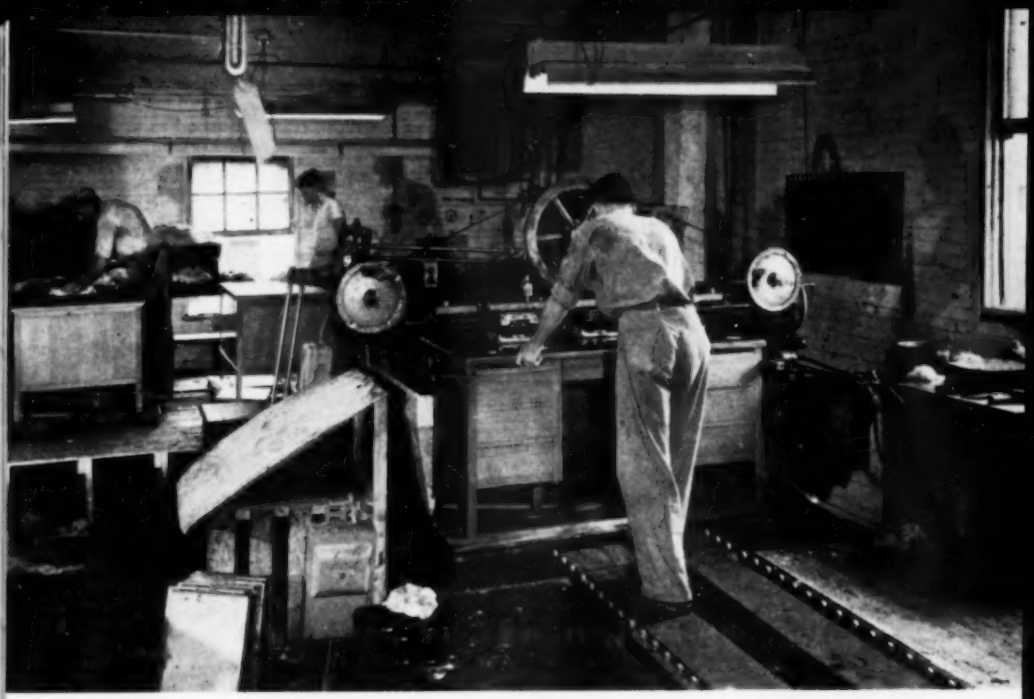
Finishing
Fine Office Furniture

BY JOE NEUKAM
Finishing Foreman
Jasper Office Furniture Co.

BY COMBINING tried and proved finishing methods with modern equipment and coating materials, we are able to finish high grade office furniture on a mass production basis. We make desks, tables, typewriter desks and credenzas. We also produce custom made furniture to customers' specifications, in various woods and finishes. The latter includes such a wide variety of woods and finishes that it would be difficult to select one for the purposes of this article, therefore I shall confine my remarks to our standard line of walnut and oak office furniture.

Finishing material is pumped directly from drum to spray guns spraying final lacquer coat.





First rubbing of tops is done by large reciprocating stroke machine. Hand rubbing follows.

Wood Surfaces Must Be Smooth and Clean

Before starting to apply a quality finish on any wood part or product its surfaces must be sanded smooth and made perfectly clean. Even though all furniture is sanded in the cabinet shop, we give it a second sanding with portable air driven sanding machines, and by hand. This is followed by a thorough blowing-off with compressed air to remove all of the sanding dust from the pores of the wood. Everything is inspected before it is placed on the finishing conveyor.

Most finishing operations are performed on this conveyor which is elevated 18-in. above the floor. Because we must have extreme flexibility, only part of our conveyor system is power driven. Those sections that are power driven operate only when a pallet trips a switch to start the chain in motion.

Our finishing department occupies two floors of the plant. To take care of this situation effectively and economically we have installed and are using an automatic, self loading and unloading elevator which takes furniture to the floor above, and an automatic incline car which returns furniture to the floor below an adjacent building, through an enclosed bridge.

Walnut Furniture Finish; Stain; Wash Coat; Fill . . .

Suppose we examine the finishing process on walnut furniture, which predominates in our line. First we spray a sap stain on any light streaks to equalize the over all color. Next an NGR stain is sprayed

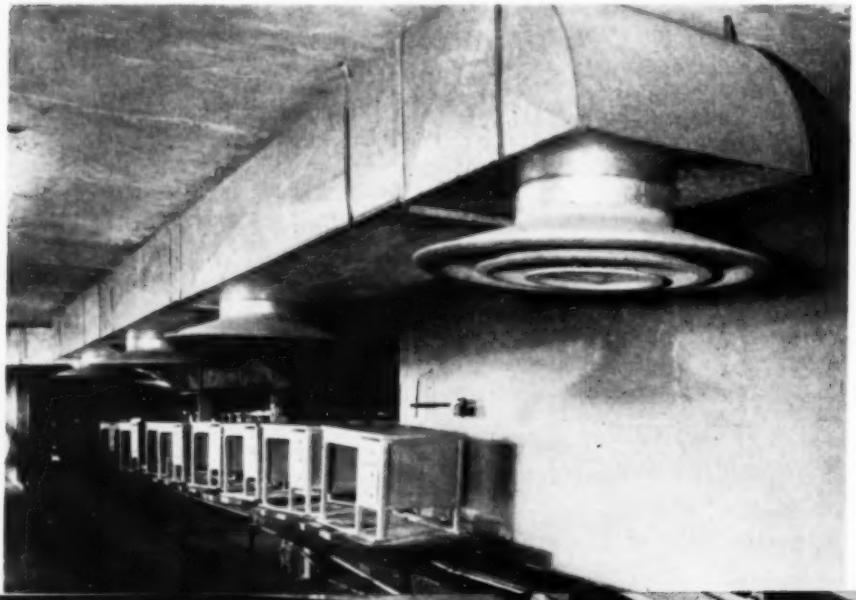
over the entire piece. Here we use an atomizing pressure of 35-lbs., and a fluid pressure of 6-lbs.

This coat of stain air dries 45 minutes before the piece arrives at the wash coat booth where a 21% solids lacquer sealer, cut four to one, is sprayed. Here we use the same atomizing and fluid pressures that were used for spraying the NGR stain. The wash coat is allowed to air dry for 40 minutes.

Next a 10-lb. cut filler is sprayed, using an atomizing pressure of 35-

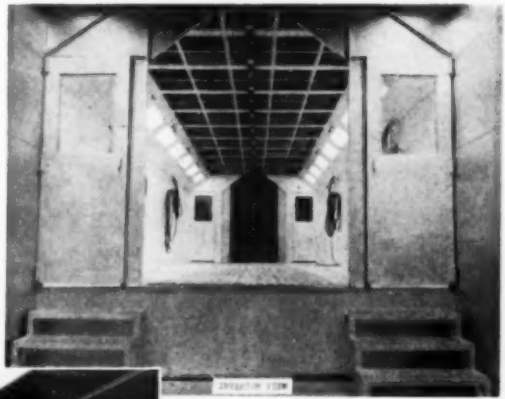
Padding in filler. Furniture arrives by way of automatic, self-loading-unloading elevator.

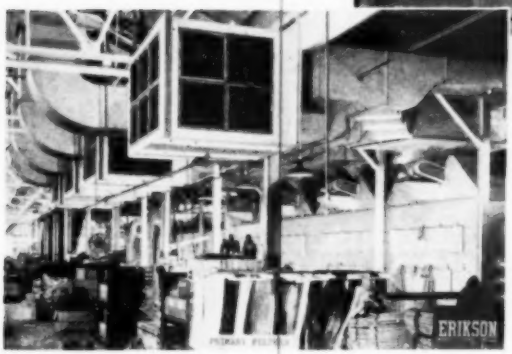
Inside oven where filler is dried. Heated air enters the oven from circular duct above.



ERIKSON *builds to your requirements*

40-Ft. Down-Draft Paint Spray Booth





↑ Interior View

← Primary Filters

This custom designed and engineered booth features:

- **Primary and secondary filtering of supply air from within plant . . .**
- **Saves costly air filtering and heating apparatus in addition to booth . . .**
- **Equipped with highly efficient water wash exhaust units on both sides—no cross drafts—fully approved by air pollutioon control authorities—absolute minimum maintenance.**

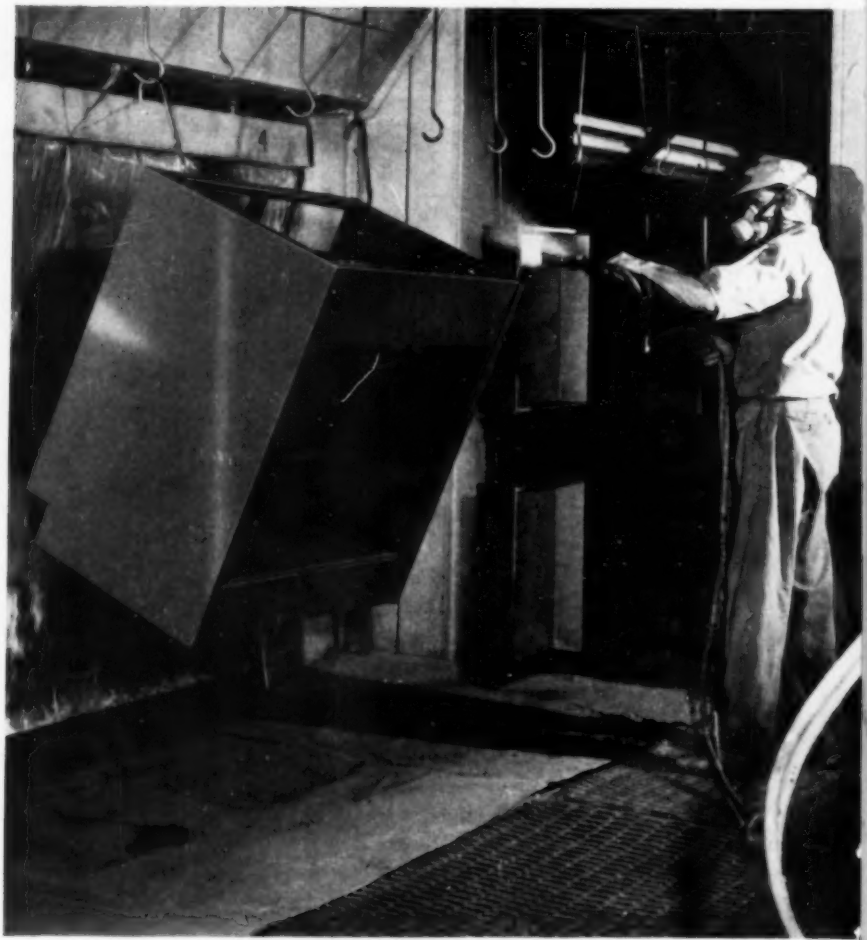
Since "catalogued" equipment will rarely meet the exact requirements of modern finishing operations, our engineers are available to work with you in the design of this and other paint finishing equipment for your specific needs.

ERIKSON

MANUFACTURING COMPANY

P. O. Box 522-C, El Monte, Calif., Phone CUmberland 3-3735

Spray Booths - Air Washers - Flow Coating Machines - Fume Incinerators



EXCELLENT SPRAYING CHARACTERISTICS of Du Pont chemical-resistant "DULUX" Enamel keep this conveyorized production line moving at high speed. Gleaming "DULUX" ups product appeal.

DUCO AND DULUX ARE REG. U. S. PAT. OFF.

Du Pont Industrial Finishes

Chemically engineered to do the job better.

DU PONT

REG. U. S. PAT. OFF.

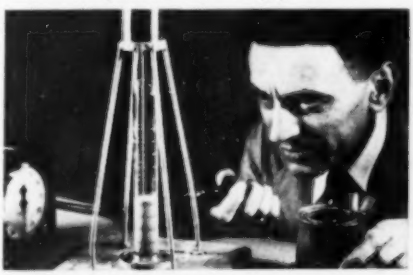
BETTER THINGS FOR BETTER LIVING
. . THROUGH CHEMISTRY

Lab furniture finish passes acid test

This metal cabinet is headed for service in a chemical laboratory. Acid and alkali solutions, solvents and other corrosive reagents will get spilled on it . . . yet it will be expected to stand up to years of hard knocks and keep its smart good looks in the bargain! That's why one of the leading manufacturers of metal laboratory furniture went to Du Pont for a suitable finish. The result—a specially formulated "DULUX" Enamel with the chemical resistance needed for all-round laboratory use . . . the durability and lasting beauty that build customer good will.

There are more than 12,000 Du Pont finish formulas already serving industry. Perhaps one of them can improve your product—or cut your costs. For expert help, contact the Du Pont Sales Technician in your area, or write: E. I. du Pont de Nemours & Co. (Inc.), Finishes Division, Wilmington, Delaware.

85% OF AMERICA'S top railways use Du Pont finishes on passenger-train equipment.



THIS DEVICE helps Du Pont chemists accurately measure and control finish viscosity.

"DULUX" goes outdoors, too. This "DULUX"-finished bicycle will stay bright for years.

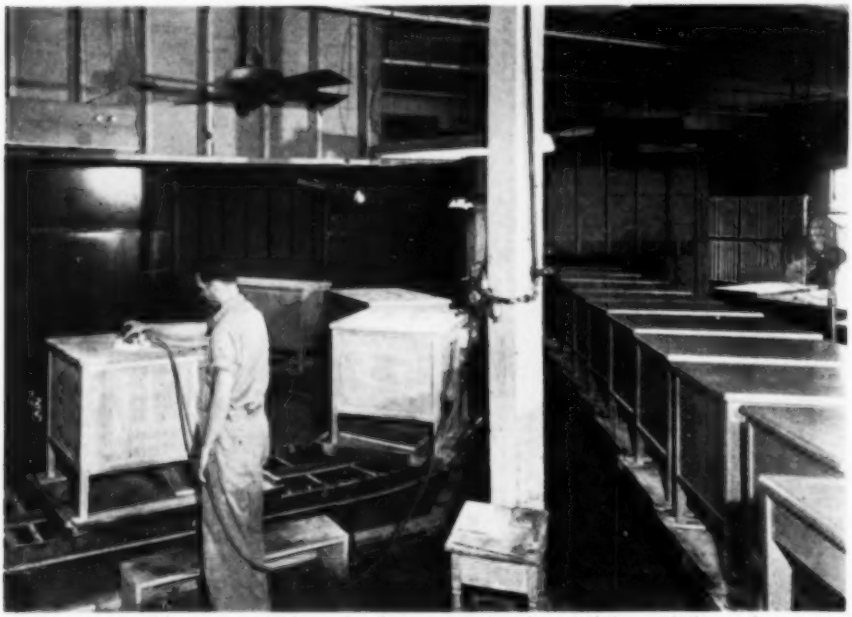
lbs., and a fluid pressure of 12-lbs. Immediately beyond the filler booth is an automatic elevator which carries the furniture up to the next floor where it is mechanically unloaded. Here the filler is padded in by hand, and the surfaces are cleaned before the pieces enter the filler drying oven. They remain in this oven for two hours at 125° F., with 28% relative humidity maintained in the oven.

Lacquer Sealer; Dry; Sand; Two Coats of Lacquer

Upon leaving the oven, pieces cool for 15 minutes before a 21% solids lacquer sealer is sprayed. For this spraying the atomizing pressure is 60-lbs. and fluid pressure is 18-lbs. The sealer coat is allowed to flash (air dry) for 50 minutes before pieces enter the drying oven. The sealer coat is dried for 50 minutes at 125°F., with 25% relative humidity.

After cooling for 20 minutes, the sealer coat is sanded with No. 5/0 sandpaper. On all flat surfaces, such as tops, ends and backs, portable air-operated sanding machines are used. All dust is blown off with compressed air.

The furniture in process is then given its first top coat of 27% solids, semi-gloss lacquer. Atomizing pressure is 60-lbs. and fluid pressure is 18-lbs. This coat of lacquer is allowed to flash for 20 minutes before the piece enters the drying oven. The first lacquer coat is allowed to dry for 50 minutes at 125°F., with relative humidity of 25% in the oven. [*To page 68*]



Using a portable power block sander (compressed air) to lightly sand the sealer coat.

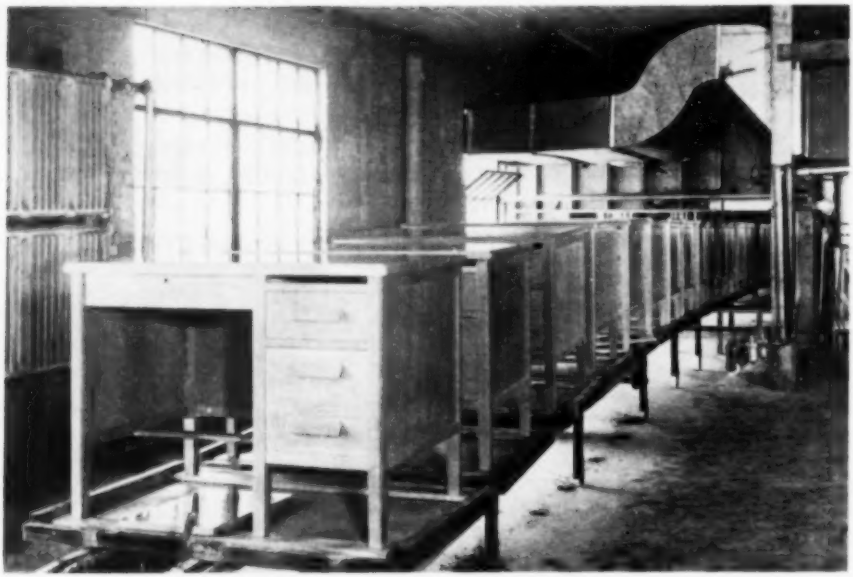
"*HAS ENABLED US TO DO TWICE AS MUCH WORK WITH HALF AS MANY MEN... ONE OF THE BEST INVESTMENTS WE EVER MADE... NOW FINISHING 156 CABINETS IN 9 HOURS WITH 21 MEN. SAME CREW CAN DO ABOUT 200... THE ONLY SYSTEM THAT WE BELIEVE WORKS SATISFACTORILY USING EITHER LACQUER OR VARNISH... EVERY MODERN FURNITURE FACTORY SHOULD INSTALL THIS MAJOR IMPROVEMENT.*"

* DeBURGH COMPLETE FINISHING SYSTEMS

These are examples of unsolicited praise DeBurgh Complete Finishing Systems inspire in plants large and small, no matter what the nature of their original production problems. (Letters available on request.)

If the thought still lingers that your particular plant cannot be conveyorized profitably, now is the time to call in a Koch engineer for consultation. You'll learn quickly how DeBurgh Conveyorization can be your best insurance for an even more profitable business. ***WRITE FOR FOLDER!***

GEORGE KOCH SONS, INC.
EVANSVILLE, INDIANA



Desks entering oven where the second top coat of lacquer is dried.

Burn-in and Patch Repairs After Top Coat Dries

Upon leaving this oven the pieces cool for 30 minutes. Then they are inspected. Any needed burn-in and patch operations are performed as required. Light edges are shaded before the pieces are given a second top coat of lacquer. This is the same lacquer as the first top coat, and similar atomizing and fluid pressures are used when it is sprayed. The second lacquer coat is allowed to flash 40 minutes before the furniture enters the final drying oven. Here it is dried for two hours at 125°F., with 30% relative humidity in the oven.

Following the final oven drying the pieces cool for four hours during which time they travel to the floor below an adjacent building over an enclosed bridge. They descend on an incline car built to hold the furniture in level position as it travels down the bridge. Loading as well as unloading of the incline car is entirely mechanical.

Machine and Hand Rubbing; Polish; Hardware; Trim

Next the finish is rubbed with No. 320 wet-or-dry sandpaper, using mineral spirits and rubbing oil cut three to one. Wherever possible the rubbing is done by machine. All tops are rubbed by a large reciprocating stroke machine. Ends and backs are rubbed with portable, air operated machines; fronts are hand rubbed. Then the entire surface is hand rubbed, using 2-F pumice with the same lu-

...BEAUTIFUL SHEENS WITH

Perfection Synthetic Satin Finishes

HERE ARE A FEW OF THE PLUSES YOU RECEIVE FROM PERFECTION'S EXCLUSIVE PROCESS OF SYNTHETIC FLATTENING:

- A Clear, Rubbed Effect Finish
- A Waxed Feel
- A Water Proof Finish
- A Liquor Proof Finish
- A Tough Elastic Finish

Available in: PERFEX SATIN FINISH (varnish); CLEAR SHEEN SATIN (lacquer)

IF YOU MANUFACTURE FURNITURE, WRITE US FOR SAMPLES

Perfection PAINT & COLOR COMPANY

INDIANAPOLIS 2, INDIANA

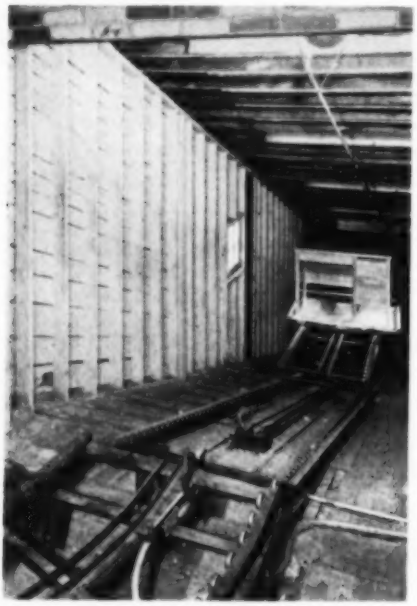
bricant as was used on the first rubbing. Finally, a clean-up polish is used to remove all traces of oil and pumice. After application of hardware and trim the furniture is given a final inspection and is then packed for shipment.

Oak Furniture Finish

We manufacture oak office furniture in two finishes—the No. 1 office oak which is a light yellow, and the soft tone oak which is slightly darker than limed oak.

All oak furniture is sanded carefully and blown off clean to remove dust from the pores of the wood. On the yellow oak we spray a special oak stain on any light sap streaks. Then a tinted toner is sprayed over the entire piece. This air dries for one hour. The surface is then scuff sanded, using No. 5/0 sandpaper; then the sanding dust is blown off. Filler is sprayed on and the oak furniture follows the same finishing operations that are used on walnut.

For the soft tone oak furniture, the light sap streaks are sprayed with toner. Then the entire piece is sprayed with the same toner which is allowed to air dry one hour. Oak then follows the same procedure as walnut furniture with one exception; on this type of oak, we use a water-white semi-gloss lacquer.



Looking down inclined tunnel through which the car carries a desk, in level position, to lower floor of adjoining building. Car is loaded above and unloaded below automatically. After being unloaded it returns to upper floor automatically, to receive another piece of furniture. Photograph by courtesy of the Logan Company.

Morrill & Renshaw Moves Into New Chicago Factory

Morrill and Renshaw, Inc., has moved from 624 N. Green St. into a new factory at 2303 W. 18th St., Chicago 8, Ill. The building was specially designed for production of the firm's line of metal washers, water wash spray booths, conveyor and dipping systems.

New Spruance Plant Has Many Modern Safety Features

The new lacquer building of the Gilbert Spruance Co., Philadelphia, has many of the latest safety features.

Solvents are stored underground, and a battery of turbine-type dissolvers is used to cut nitrocellulose, resin and base solutions. Hydraulic elevators bring the finished product to shipping platform level.

Water white lacquers are stored in stainless steel tanks, while agitated vats are used for storage of regular sealers and flat lacquers.

The building is protected from fire by water sprinklers and dry chemical extinguishers. Floors are spark-proof. Lighting, power, and electrical contacts are explosion-proof . . . . and explosion-proof vent sash is used throughout.

STAINS • GLAZES

Industrial Finishes for Application by All Methods

LACQUERS
SEALERS
FILLERS
ENAMELS
UNDERCOATS
SHELLAC
SPECIALTY FINISHES

Stains and Glazes to produce all modern or traditional colors with rare attractiveness. Specially formulated to give easy application with quick, dependable drying.

In Step with the Times

JAMES B. DAY & CO.

CHICAGO 14

To Make Bronze Stripes

We have to do some bronze stripes in various widths on a new line of black and antique white furniture. Our previous lines have not required any paint artists and we do not have such employees. Is there any satisfactory device for making gold stripes that an average ability finisher could operate?—*J. M. Y.*

Yes, there are striping tools that a girl can operate skillfully—and in a letter we are naming three manufacturers of such devices.—*Editor.*

Crackle Finish

We are sending you a label from a Krak-A-Lack can. We obtained this lacquer several years ago from Montgomery Ward & Co., but now they tell us they can no longer furnish same. Will appreciate it if you will inform us where we can obtain a similar finish. This lacquer forms cracks as it dries, showing a contrasting color underneath—*C.R.E.S.*

In a letter we are naming three concerns near you, who, we believe, can supply the material you mention. —*Editor.*

A1. Silicone Paint; Air Dry

Referring to an inquiry under the above title, as published in May, 1954, issue, pages 70 and 72, we have worked on this. The specification was extremely difficult to meet, which will explain the time lag in our answering your letter. However, we now have a coating which, in our opinion, will meet the specification of the concern listed as "X. Co."

There is very little more that can be said about this coating except that it seems to meet the specification as outlined in the published letter. We will be happy to furnish samples of our product to the interested company in the event that they have not yet been able to fill their requirements.—*J. Landau Co.*

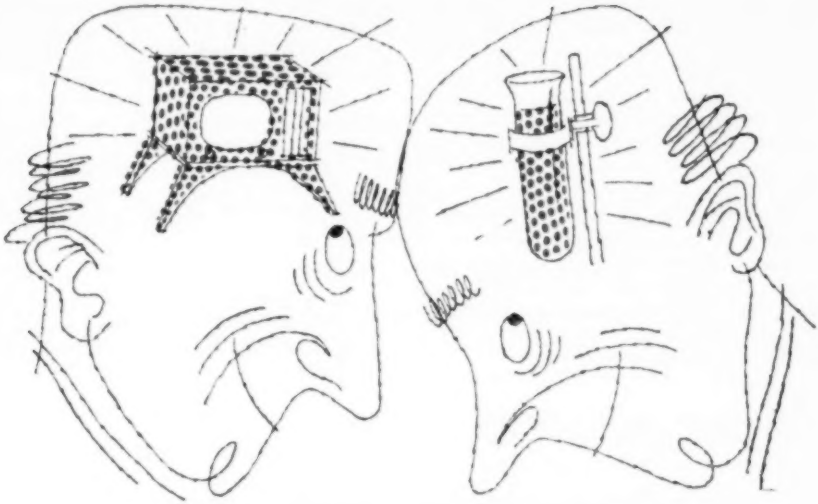
Nameplate Coatings

The August issue of *Industrial Finishing* contained an inquiry from a firm listed as "W. M. & S. Co.", regarding finishes for nameplates; an Editor's note explained that a list of several advertisers who supplied such finishes was being sent to the company.

If you have included our name in that list, all well and good; if not, we would appreciate your forwarding our name to them, stating that we have considerable background in the field, with both air dry and baking types of coatings for polished and etched chromium, aluminum, zinc, brass and steel name plate stock.—*Barrett Varnish Co.*

Patch and Repair Kits

From the Singer Sewing Machine Co. here in Stockholm, Sweden, we have received an inquiry regarding the article we had printed in our journal "Farg och Fernissa" by Del-



FINISHING PROBLEMS?

Let's put our heads together!

Picture the fellow on the left as your sales manager. He's thinking about the *beauty* of your finished product because he knows that sales start with the finish. And that's where we come in. We specialize in worrying out gloss, reflective quality, uniformity of color, flow characteristics, resistance to heat, light, salt, fog, humidity, corrosion and the hundreds of other problems that beset your finishing department. So, if you want an industrial finish *tailor-made* to solve your problems, give us a call. We'll get our heads together and come up with the right answer . . . fast!

JAMESTOWN FINISHING PRODUCTS, INC., Jamestown, N. Y.

Makers of

AVALEX lacquers, enamels, stains, varnishes and other industrial finishes

BETTER FINISHES THROUGH RESEARCH

bert Bickel, called, "Finish Patching and Repairing", which appeared in your March, 1954, issue. The Singer Co. is eager to acquire such a repair outfit, adapted for Swedish conditions, and they would like to get in touch with American firms manufacturing the colors and the putty knives with the heating appliances.

We would be very much obliged to you if you would forward Singer's questions to the firms you think have such materials and ask them to contact us or Singer directly, Stockholm C., attention H. Rudstrom. — *Arvid Lindgren & Co., Ltd.*

We are referring a copy of your letter to Mr. Bickel and to three U. S. concerns that have finish repair kits to sell.—*Editor.*

For Steel Tank Cars

We propose to paint railroad tank cars in our Methylene Chloride service with a color scheme using colors of paint per sample of swatches attached [medium light brown, black and yellow]. An exterior steel tank paint will be sufficient for our purpose.

Please tell us the names and addresses of paint manufacturers who would be in a position to furnish this paint as a standard item. Our requirements do not warrant the purchase of a special batch to obtain these colors. —*S.P.D.*

In a letter we are naming several concerns, any one of which can probably supply exactly what you want. —*Editor.*

"All right, so you're on TV—now crawl out of that cabinet and get them moving."

Finish for Steel Shelving

On page 80 of July, 1954, issue, we notice the request of "X. Y. Z." who asks about a highly abrasion resistant coating suitable for steel shelving. We currently manufacture products for this end use and these products have many of the qualities desired by the person who wrote to you describing his needs.

Through the use of one of our Devran (epoxy) type formulations or possibly another outstanding formulation of ours, we believe we might have something of interest should your inquirer be a type of account to which we could accord proper industrial sales attention. Should you care to give them our name, we would be pleased to have you do so.—*Jones-Dabney Co.*

We have two newly developed products, one or both of which will do the job for them.

One is a super-tough varnish type material that air dries dust free in 15 minutes, to handle in 30 minutes, and hard and positively mar-proof overnight. It also can be baked at any normal enamel baking schedule. To date we have produced it only in

QUALITY!

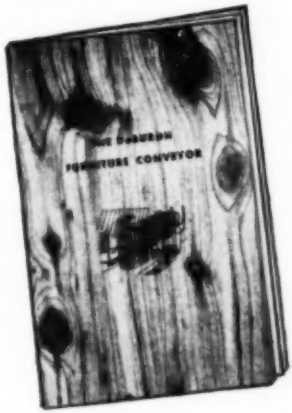
". . . and best of all we have improved the quality of our product."

Those words written in praise of the DE BURGH FINISHING SYSTEM have been repeated often in letters from a rapidly growing list of enthusiastic users.

Many, in praising labor and space saving features, have expressed their pleasure in improved quality of finish without change of formula or materials.

"Quality" is a word well applied to the DE BURGH FINISHING SYSTEM.

Designed by a FURNITURE MAN for FURNITURE MEN it is the "Quality" product at lowest cost that will save the most money and give best efficiency in your finishing room.



▶ Write today for this Free Booklet on conveyorized Furniture Finishing. No obligation. No representative will call unless invited.

Designed by a Furniture Man for Furniture Men

DeBURGH CONVEYORS, Inc.

10 SOUTH 11TH AVENUE
EVANSVILLE, INDIANA

1741 K STREET, N. W.
WASHINGTON 6, D. C.

***Pat. Nos. 2317675, 2640580, 2640607**

clear, but it can be pigmented and is perfectly suitable over all types of metal, wood, etc.

The other is a modified alkyd enamel that exhibits extreme surface hardness, being impervious to mars and scratches. It is available only in semi-gloss materials and requires a minimum bake of 250° F.—*Cook Paint & Varnish Co.*

Would you please give us the name and address of "X. Y. Z.", who requests a better finish for sheet steel shelving, on page 80 of July issue? Also the name and address of the H. O. Co. who inquires about graining on metal, on page 88 of the same issue?—*Interchemical Corp.*

We have a laminating process wherein decorative vinyl surfaces can be applied to metal or other surfaces, and would be pleased to discuss this with "X. Y. Z".—*The Sorg Paper Co.*

To all these and other inquiries, "X. Y. Z" has been identified. Thank you for your interest.—*Editor.*

Automatic Air-Operated Dip Tanks, Conveyorized

We would like to obtain information and addresses of manufacturers of automatic air-operated dip tanks used in conjunction with a monorail conveyorized paint system.

Instead of the conventional drop of a dip line into a dip tank, we have in mind a straight line with the dip tank being elevated by an air-operated cylinder to cover the work carriers and automatically drop out of the way as the work moves forward.—*R. Co.*

By letter we are naming several concerns, each of which has an engineering department that can work out designs for the equipment you have in mind. As you know, this would be a custom-built job. These concerns are prepared to design, supply and install the equipment and guarantee the results.—*Editor.*

Weber Process Exhibit

We refer to Dec., 1953, issue, page 62 and further, which refers to the Weber process exhibit. Will you please give us the address of the Weber Process concern so that we can get more details?—*Leathertone, Inc.*

We refer you to Martin J. Weber, of The Weber Studio, 171 Madison Ave., New York, N. Y.—*Editor.*

Automatic Viscosity Control

On page 66, August issue, is an inquiry on automatic viscosity equipment. The Foxboro Co., Foxboro, Mass., market a package unit consist-

"Blackburn's a good worker when we don't get a toy job in!"

ROCKFORD VARNISH

RV

ROCKFORD, ILLINOIS

MANUFACTURERS OF
PROTECTIVE AND
DECORATIVE FINISHES

. . . and what are *you* looking at? Looking forward to better products, better business, bigger profits, no doubt? Well, let us help you. We are forward-looking, too, in the way our shop is equipped, in the way we use our experience, in the way we work to satisfy our customers' *future* needs. We make all the standard finishes, and a number of very interesting "specialties". Try us.

Affiliate: GORDON BARTELS CO., *Roller Coating Specialists*

ing of automatic viscosimeter, recorder, signaling device, and replenishing pump. They install and service their package units.—*E. A. Z.*

Two others include Brookfield Engineering Laboratories, Inc., Stoughton, Mass., and Fischer & Porter Co., Hatboro, Penna.—*Editor.*

"Okay! Okay! It's a good mirror finish!"

Overspray Paint Arrestors

In the July issue of *Industrial Finishing*, pages 32-48, we read with interest Mr. C. B. Rowe's article on controlling overspray with paint arrestors. Can you give us the names of any companies who supply this type of filter needed to catch the overspray?

We manufacture enameled kitchens made of wood and have been having trouble with overspray.—*C. H. Co.*

. . . . . on page 37, Fig. 4, there is an illustration of a filter pad in which we are interested. We would appreciate it if you could give us the name of the manufacturer of this item, so that we can obtain further details.—*A. M. Ltd.*

The manufacturer of this equipment has a ½-page advertisement on page 104 of August, 1954, issue of this magazine. The name and address are given in this ad.—*Editor.*

What's the "Gantron" Process?

We are interested in obtaining information about a so-called "Gantron" process for applying a reflective coating to metals such as signs, etc. Can you provide any reference to the manufacturer controlling this process, or any reference to a source of information about it?—*Pre. Products.*

We have never heard of it. Will some reader please help us on this? —*Editor.*

Squeegee Coating Pencils

In July, 1954, issue, page 80, we read a brief letter on Squeegee Coating Pencils, signed by Saul Robinson. We would like to have the address of Mr. Robinson in order to get in touch with him, as we have some difficulties with the finish of our mop handles which are coated by the squeegee process.—*B. & S., Canada.*

It is 1402 E. 35th St., Paterson 4, New Jersey.—*Editor.*

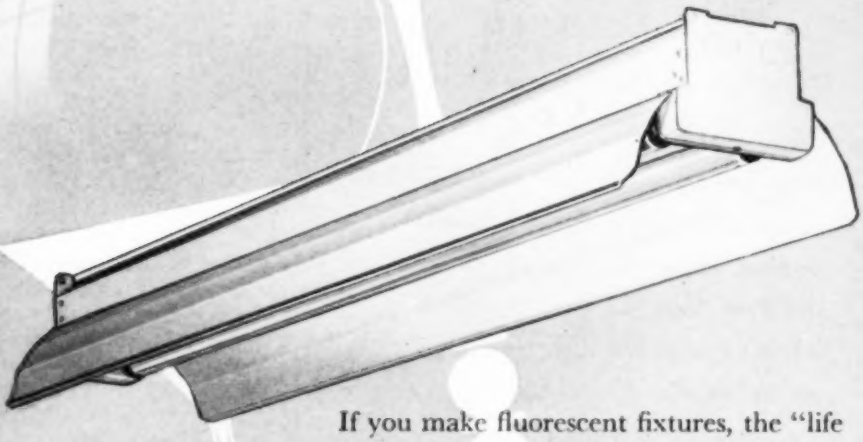
Tumbling; Dipspin Facilities

We are interested in the names of manufacturers of paint tumbling and Filwhirl Dipspin equipment.—*L. Co.*

Information given by letter.—*Ed.*

It happens every day
in the fixture business...

LIFE is on the
LIGHTER SIDE



If you make fluorescent fixtures, the "life of your light" exists in the reflective areas where gloss and color retention of the baked enamel surfaces contribute so immeasurably to the quality of the product.

The Arco Research Laboratory works with the engineers of The Miller Company, Meriden, Conn., in developing baking enamels of highest reflective qualities and long life, on the "lighter side".

Why not take your finishing problems to ARCO where experienced formulators tailor quality paints to exacting specifications—and pre-prove performance by Arco Cycle Testing, a system which evaluates finishes to a degree unequalled in the industry. Write for full details.

ARCO PAINTS
Quality... SINCE 1881

TESTED FIRST TO LAST!

THE ARCO COMPANY • CLEVELAND 27, OHIO • LOS ANGELES 1, CAL.
A SUBSIDIARY OF AMERICAN-MARIETTA COMPANY

Flock Coating Fiber Board
For Glove Compartments

BY B. T. SILVER
Product Engineering
Fabricon Products, Inc.

The adhesive (gray synthetic enamel) is spread by a roller coater, rayon flock is put on by machine, and the fast drying is effected in an infrared oven—on an automatic production line.

THE GLOVE compartment of most automobiles is made of flock coated fiber board. This sturdy fiber board is amply strong enough to support the weight of any objects that may be placed in the compartment. The suede like surface is pleasant to touch, insulates against noise, and prevents any scratching of the surface of articles placed in the compartment. The flock fibers really become a part of the fiber board; this makes it possible to flock coat large sheets of fiber board which are then die-

Adhesive (gray enamel) is applied to fiber board panels by roller coater. Hood above removes solvent vapor fumes. As panels go through this machine they move forward onto conveyor belts which carry them through the flock coating machine, the entrance of which appears at right.

Side view of outside of flocking machine. Some of the surplus flock is exhausted from the upper chamber of the machine and blown into the inflated canvas bag at right. Other surplus flock falls into the hopper below machine and is returned to the bin from which it is again fed by screw conveyor to the vibrating mesh basket. Photo from Cellusuede Products, Inc.

cut to shape and scored for bends without damaging the flocked surface.

High Quality Production Job Is Demanded

Obviously this flock coating must be a production job, yet the results have to be uniformly good to pass the rigid tests of our quality control laboratory. To attain this point of perfection it is necessary to remove as many of the variables as possible; accordingly we have standardized on raw materials, equipment and methods.

The fiber board is standard black, .070-in. thick and 54-in. wide. The adhesive is a steel gray synthetic enamel which is used at a viscosity of 110 seconds at 70° F., as measured in a No. 4 Ford cup. The flock fibers are steel gray rayon cut .030-in. long. [*To page 82*]

First, A Roller Coater Applies Adhesive to Panels

The roller coater, mounted on large ball-bearing swivel casters, will coat stock 54-in. wide. It has a steel feed roll, a neoprene applicator roller and two steel doctor rollers. Liquid adhesive is piped to the roller coater from a mixing-supply tank located in a fireproof room on the floor above and directly over the machine.

A metal hood directly over the roller coater is connected to an exhaust stack to carry off solvent vapors from the material. The roller coater is located just ahead of the flocking machine so that as the fiber sheets are coated with the adhesive, they are picked up by moving belts of the flocking machine. These belts travel at a speed of 35-ft. per minute.

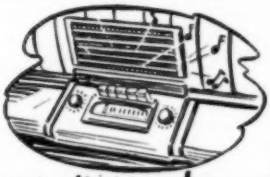
Flocking Machine Puts on Clean Coating of Flock

The flocking machine includes an enclosed chamber with an entrance and exit for a low flat conveyor that carries stock through the machine. Coated stock is carried through on a series of 1½-in. wide, flat rubber belts which pass over five 1¾-in. square metal beater bars. These beater bars revolve at a speed of about 650-rpm. which causes the coated fiber board to

Inside the flocking machine where flock in the big vibrating swinging wire mesh basket is sifting down onto adhesive-coated fiber board panels moving through flatwise by multiple conveyor belts. The belts pass over rotating beater bars which cause the fiber boards to vibrate rapidly as the flock rains down from above. Photo, Cellusuede Products, Inc.

Rayco Flock

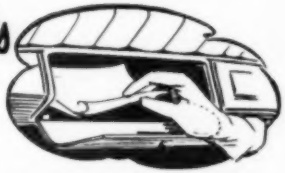
Serves the Automotive Industry



for radio speaker grilles

for luggage compartment linings

and now..
for glove compartments



For the finest *Precision-cut Flock* specify RAYCO, now being used with outstanding success to form the linings of fibreboard glove compartments. Rayco Flock assures you

STRICT UNIFORMITY OF CUT
AND EASE OF APPLICATION

Samples Available

Rayon Processing Co. of R. I., Inc.

PIONEER PRODUCERS OF SURFACE COATING FLOCKS

1 MOSHASSUCK STREET PAWTUCKET, R. I.

Detroit Rep. ACME MILLS CO., 5151 Loraine Ave., Detroit 8, Michigan

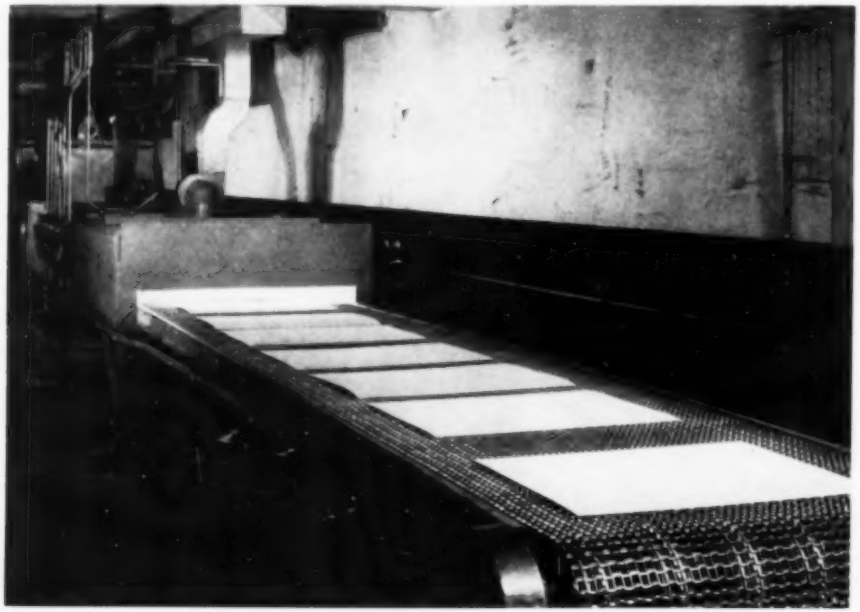
rapidly bounce up and down while flock fibers are being applied by a swinging-vibrating wire mesh basket.

The vibrating mesh basket is located just inside the entrance to the machine. Flock fibers are fed into the wire mesh basket through a pipe above the basket. Excess fibers drop down into a hopper under the machine to be carried back through ducts and again fed into the wire mesh basket.

Flock fibers are fed, by means of a motor driven screw conveyor, into the duct system from a supply tank located on the side of the machine. The operation of this motor drive is controlled by an electric eye which is directed into the machine just below the wire mesh basket. As long as the atmosphere inside the machine is virtually saturated with flock fibers, the motor driven screw conveyor remains idle. As this atmosphere becomes less dense the motor automatically starts and the screw conveyor begins to feed additional fibers into the duct system, and into the wire mesh basket.

Loose Fibers Drawn From Surface and Recirculated

Exhaust equipment is located at the top of the machine to remove those fibers which are circulating in the air. Through the exhaust system these fibers are deposited in a large canvas bag. When the bag



Leaving the infrared oven in left background, the coated fiber board panels are cooled to handling temperature by ventilating fans operating under this open mesh metal conveyor belt.

Reduce Man Hour Loss

"Kerodex" Gives New and Improved Barrier Protection Against Contact Dermatitis

"Kerodex" is a new and improved barrier cream which offers maximum protection against hundreds of primary irritants and sensitizing agents encountered in industry. It provides an effective protective coating which is invisible yet strong and as elastic as the skin itself. It protects against initial contact. It prevents the recurrence of a dermatitis after recovery.

Special Advantages

"Kerodex" offers practical and effective protection *before* the damage is done. It is nonirritating and nonsensitizing. It may be applied with equal safety to the face, hands or any other area of the skin, keeping pores and follicles free from foreign matter.

"Kerodex" does not smear. It does not affect materials handled, nor is it affected by them. It is easy to apply, economical and highly acceptable to the user.

"Kerodex" provides a vital safety measure for the maintenance of high production levels.

Maximum Protection

"Kerodex"® is supplied in two types, and a series of creams are available to protect against: *water-soluble* irritants such as acids, alkalis, soaps, detergents, and *water-insoluble* irritants such as paints, enamels, cleaning fluids.

Write for Information

We'll be happy to send you complete descriptive literature, or to have our representative call at your convenience.

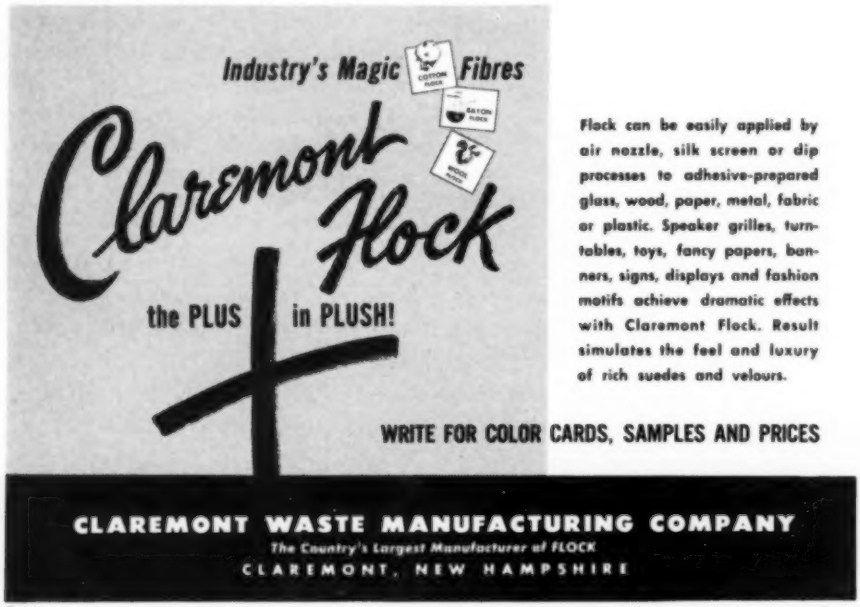
Ayerst Laboratories, 22 East 40th Street, New York 16, N. Y.

is filled, the fibers are manually transferred to the supply tank. It takes quite some time for this bag to become full of flock fibers, for in this highly efficient machine most of the fibers that do not become adhered to the adhesive-coated fiber board drop down into the hopper under the machine and are returned through duct work to the wire mesh basket.

Inside the machine, near the exit opening, there is an air injector duct extending across the full width of the conveyor. This duct is just high enough to permit flocked fiber board to pass under it. A strong current of air coming from this duct accomplishes two things. First, it aids in deflocking the fiber board surface by blowing any loose fibers back into the hopper of the machine, or into the air to be exhausted into the canvas bag. Second, this air injector duct prevents any unattached flock fibers from escaping into the room. The fifth beater bar is located just ahead of the injector duct to sharply agitate the flocked fiber board; violent agitation at this point helps to promote more effective deflocking of any loose fibers.

Infrared Oven Drying, Cool-off by Fans . . . .

As the flocked fiber boards leave the flocking machine they are deposited on a horizontal, metal mesh conveyor belt to go through an infrared electric oven. The flocked surface is subjected to drying for 45 seconds at 170° F. Upon leaving the oven the boards travel about


Industry's Magic Fibres
Claremont Flock
the PLUS in PLUSH!
Flock can be easily applied by air nozzle, silk screen or dip processes to adhesive-prepared glass, wood, paper, metal, fabric or plastic. Speaker grilles, turntables, toys, fancy papers, banners, signs, displays and fashion motifs achieve dramatic effects with Claremont Flock. Result simulates the feel and luxury of rich suedes and velours.
WRITE FOR COLOR CARDS, SAMPLES AND PRICES
CLAREMONT WASTE MANUFACTURING COMPANY
The Country's Largest Manufacturer of FLOCK
CLAREMONT, NEW HAMPSHIRE

30-ft. on the conveyor belt to cool before they are loaded onto platforms. Four large electric fans are located on the floor beneath this section of the conveyor to aid in cooling of the flock coated board as it leaves the oven.

All flock coated boards are allowed to air cure for 24 hours before they are die cut to shape and scored for bends.

Prevent Flock From "Balling Up"

FLOCK FIBERS will often "ball up" during certain seasons of the year, particularly when the relative humidity is exceptionally high. This condition sometimes occurs in spite of the best accepted storage and handling methods. The balling-up of flock may be more noticeable in the supply tank of the flocking booth or in the flocking machine. where the fibers remain overnight, over weekends or over a holiday.

The cause of balling-up of fibers is simply that they absorb moisture, and they have a tendency to cling together to form lumps. These lumps or balls of flock will interfere with satisfactory flock coating.

One way to cope with this situation is to install an infrared electric lamp in such a position that its heat rays will be directed against the surface of the metal supply tank. This arrangement will heat the entire tank enough to drive off any moisture that may accumulate due to high rela-

(Continued on page 123)

TO ADD BEAUTY, COLOR AND SALES APPEAL
FOR CUSHIONING
FOR SILENCING

FOR A DURABLE PROTECTIVE COATING

INVESTIGATE *Cellusuede* FLOCK

THE PRODUCT FINISH *with* A THOUSAND USES

Every day product designers, industrial finish and material engineers are finding new, profitable uses for Cellusuede Flock—industry's most versatile product coating. With these cotton, rayon or hair fibers, you can add new beauty, color, and sales appeal to your product, provide a durable protective finish, silence noises, or dampen vibration. Best of all, the soft velvet-like Cellusuede finish is easy to apply to wood, metal, plastic, fabrics, leather, cardboard, or paper surfaces, either on a modified or production line basis. It's inexpensive, more durable than fabric, and readily available in a wide range of textures and beautiful colors. Investigate today the profit possibility of using Cellusuede for your product.

FREE BULLETIN—SAMPLES, TECHNICAL SERVICE

Write for 12-page bulletin illustrating profitable uses and applications. For help with a specific job, Cellusuede's technical service and unexcelled facilities are available for producing samples to meet your needs.

CP

CELLUSUEDE PRODUCTS, INC.
Producers of Natural and Synthetic Flock

514 N. MADISON STREET • ROCKFORD, ILL.

That Infrared Drying Setup at Northrop

Mr. J. D. Breneman: In reading the August 1954 issue of *Industrial Finishing* we saw your illustrated article, "Flow Coat Priming," and since we are a manufacturer of infrared ovens, naturally we are interested in your method of drying.

You are to be congratulated for having the initiative to work out your own method of drying. However, we have found that in the majority of cases homemade ovens actually cost more, in the long run, when operating costs are considered. We hope you will not consider us too presumptious in calling to your attention our opinion in connection with the oven. . . .

Using an aluminum sheet as a reflector opposite your bank of lamps is better than no reflector, but we believe an opposed bank of clear lamps with gold reflecting surfaces is much better, and we can support this statement by test graphs.

We have usually found that zinc chromate will dry in approximately 30 seconds when radiated properly. On the basis of your 10-ft. per minute conveyor speed you would then require an oven about 5-ft. long. Assuming that you need an oven of the height shown in the photo on page 45 [August issue] which we judge is approximately 6-ft. high, one of our ovens to do this job would have a total of 72 lamps (opposed banks with 36 lamps in each bank). We estimate that the operating cost would be about half.

Further, we would guess that if you compared your actual costs for constructing the oven, it would be comparable to our cost for the necessary equipment to do the job.

Further, lamp replacement cost for the G-30 clear type lamp we would recommend is substantially less than for the R-40 lamps you are using. The G-30 250-watt lamp costs 85¢ as against $1.35 for the R-40 250-watt lamp.

Assuming that you may welcome an opportunity to discuss this subject further with our representative for Southern California, we are referring it to (them). We know they will want one of their engineers to stop and see you when convenient.—*P. H. Krupp, The Fostoria Pressed Steel Corp.*

To Clean and Phosphatize Large Sheets of Steel

Under the above title, in August issue, page 82, I notice an inquiry from the "F. Co.", a custom finishing shop. They want to know how to clean and phosphatize large sheets of steel. The answer by "J. R." leaves the firm little choice except to invest $15,000 in large equipment, or give their cleaning profits away to a subcontractor.

Actually, there is an easy, inexpensive solution to this problem for the custom shop that does a variety of work, no one size or kind of which is in very large volume. I assume from the letter that performance and results are the yardstick for their work, and that no rigid specifications

Engineered and installed by Binks Mfg. Co.

Nash Nips Dust Problems In the Bud!

AAF Filters Assure Clean Air Supply For Body Painting Operation

Pictured is a portion of the operation where Nash Rambler bodies receive their final beauty treatment. Make-up air for the big paint spray booths at the Kenosha, Wisconsin, plant first passes through a bank of AAF Multi-Duty Automatic Filters which do the basic cleaning job. It then travels through a "ceiling" of Airmat PL-24 dry filters running the full length of the spray booths which serves both as an aftercleaner and to distribute the clean air uniformly over the entire work area.

It's the absence, not the presence, of clean air that costs you money. Elimination of rejects and do-overs quickly returns the cost of efficient filters. Your local AAF representative is an expert in analyzing and supplying clean air requirements. His opinions are unbiased because AAF has a type and size filter to meet your every need both as to price and performance. Call him today or write us direct for complete product information.

AAF herman nelson

American Air Filter

COMPANY, INC.

210 Central Avenue, Louisville 8, Kentucky

American Air Filter of Canada, Ltd., Montreal, P. Q.

as to the type of phosphatizing exist. Even so, they might easily get an exception, in this case.

I am referring to the phosphate or acid type of cleaner, sold by every company specializing in cleaning compounds. I am amazed that some of these materials are not used in every finishing shop. Certainly they are indispensable to every custom shop, yet I know that many expert metal finishers have never tried them. They are simple to use and comparatively inexpensive, although more labor is required than with dip or machine methods. They are invaluable for work too large or too heavy to be handled by other methods.

In addition to insuring a thoroughly clean surface, a microscopic etch and iron phosphate coating is accomplished. Light rust is removed during the cleaning. This leaves an ideal surface to receive any type of organic coating. Tests conducted by Parker Rust Proof Co. and various government agencies have shown that steel, prepared in this manner, is only slightly second to Bonderized steel in insuring adhesion of the paint film.

While it is not recommended procedure, I have satisfied myself that steel, cleaned with an acid cleaner, will resist rust for a week or more, if it cannot be finished or prime coated immediately.

Naturally, each manufacturer has his own recommendations for use of his own acid cleaner. Usually the cleaner is diluted from 50% to 200% with water. On large pieces I prefer to swab the solution on a convenient section with a cloth or brush, working it in the soiled or rusted portions. It is the physical action that determines the job. It should not be rinsed or allowed to dry on the work. If it does, re-wet it. Instead, the surplus is mopped up with a damp sponge or cloth, and then the section is wiped dry with a clean cloth. It is easy to detect a missed spot, due to the change in the color of the steel. Although it is quite harmless, I prefer to use rubber gloves when working with an acid cleaner.

During the war, we built hundreds of stratosphere chambers that were used in testing aircraft instruments, etc. In themselves, the chambers had to simulate all extremes of temperature and humidity, as well as atmospheric pressures. They were shipped to the four corners of the earth, including Russia.

Some were as large as a fair-sized room, with both inner and outer shells of steel. Organic finishes were specified, inside and out. Cleaning and painting operations had to be staggered to fit in with various stages of assembly and test running. Despite all this, and the severe usage of the chambers, we experienced less than 10% of the anticipated film failure. There was only one type of cleaner that could do that job. It was an acid cleaner and it did the job well.

Workmen in the shop could lay the sheets horizontally on a table or trestle smaller than the sheets, to avoid wetting the table and carrying the liquid to a clean side. Or, they could set them up on some sort of an easel. With a good supply of clean, absorbent rags, a couple of energetic workers (one swabbing, one wiping) should be able to clean from 25 to 50 sheets per hour, doing both sides. Even half that score is not prohibitively expensive.—*George Conrad.*

Pennsalt Chemicals Opens Canadian Division

A Canadian division has been opened by Pennsylvania Salt Mfg. Co., Philadelphia, Penna. The new devision, Pennsalt Chemicals of Canada, will operate under an agreement with Canadian Industries, Ltd., which has represented the company for 15 years. Sales office and warehouse of the division are in Hamilton, Ontario. W. B. Billingsley is manager.

Conveyor Line Finishing

CONSULTATION . . . .

Through research, development, observation, trial and error, and many years of experience, our technical men have become experts in all kinds of C.L.F.* operations. They have the "know-how" that comes with many years of experience.

Perhaps you can improve your present schedules and reduce rejects to a minimum. It won't cost you anything to inquire and determine if your C.L.F. operation is up to modern schedules of production and standards of quality.

If you are planning a new C.L.F. set-up, or if you are planning to convert your finishing production to C.L.F., our technical men are available for consultation without obligation. A phone call, wire or letter will give you the details of the recommended procedure to work out and solve your particular problems.

*Conveyor Line Finishing.

OUR 79TH YEAR OF SERVICE

The Lawrence-McFadden Co.

Headquarters for Fine Finishes Since 1875

Manufacturers of

FILLERS—STAINS—VARNISHES—LACQUERS—SEALERS—PRIMERS AND SPECIAL FINISHES FOR CONVEYOR LINE PRODUCTION

7430 STATE ROAD **PHILADELPHIA 36, PA.**

Coating Wood and Metal Parts for Lamps

We manufacture lamps, and are seeking better methods for finishing certain parts. One of these parts is a solid wood base 4½x3½x1⅝-in., with two rounded corners. The other part is a ⅜-in. bent steel pipe 11½-in. long, threaded at both ends. This pipe has a slight offset bend.

We experimented with dipping these pipes, but found that a drop of paint remains on the surface, generally at both ends of the offset bend. At present we are spray finishing both parts. We would like to coat these parts by either tumbling or dipping, if possible. Can you offer any suggestions?—*I. L. Inc.*

Tumble finishing is out of the question for these parts. Spray finishing is probably best suited for coating the wood blocks.

The ⅜-in. diameter pipe, however, offers possibilities for dipping. You do not indicate what your volume of production is, and this would be a factor in the choice of a method of controlled dipping.

One method of controlled dipping is to use a mechanical device which controls the speed at which the pipes are withdrawn from the material. The speed of withdrawal should equal the rate of enamel flow-off from the surface of the pipes. This will practically eliminate any dripping of enamel after the pipes have been removed from the mechanical dipping machine. Of course, you realize that as the viscosity of the enamel increases, due to evaporation of solvents, the slower should be the speed of withdrawal. Then when solvent is added, and the viscosity is reduced, the speed of withdrawal can be increased.

Another method of preventing clinging tear drops and fat edges is to install a solvent vapor drain enclosure, attached to the exit end of the dip tank. In this enclosure only sufficient exhaust is provided to keep the concentration of solvent vapors within safety limits. Fresh, filtered air is let into this vapor tunnel in equal volume to that which is exhausted. Air intake and exhaust ducts will have to be properly dampered to prevent air currents and turbulence of air in this vapor tunnel.

In a properly controlled solvent vapor atmosphere, excess enamel should drain from these pipes so that no drop of paint will remain on the surface at the beginning and end of the offset bend.

Of the two methods, I recommend the solvent vapor drain enclosure for your purpose. For best results, and for safety reasons, this enclosure should be designed by an experienced finishing engineer.—*J. R. C.*

Mask Small Holes In Stamped Metal

We have to paint both sides of several thousand stamped metal parts, ⅛-in. thick. Each part has several drilled holes ranging in size from 1/16 to ½-in. and *these holes must not be painted*. The parts are of such shape that we cannot roller coat the surfaces, nor can we paint before drilling. We plan to spray paint the surfaces and bake the paint at 300° F. This is a Government job and must meet strict specifications. How can we mask these holes, rapidly, efficiently and economically?—*E. B.*

I suggest the use of metal plugs for these holes. The plugs may be made of soft aluminum, or perhaps a soft aluminum alloy. You may have to experiment with several plugs before reaching a definite conclusion as to just what suits you best. [*To p. 94*]

Proper Finish

IS ALL IMPORTANT TO YOUR PRODUCT...

BARRETT skills produce superior:

- Furniture Finishes
- Wood & Metal Lacquers
- Wood & Metal Primers
- Lacquer Enamels
- Metalescent Finishes
- Synthetic Enamels
- Varnishes
- Wrinkle Finishes
- Hammer Finishes
- Specialties of all Types

. . . because it is, why not let truly qualified experts suggest one that is perfect in every respect?

BARRETT VARNISH COMPANY has 83 years of experience in creating and producing industrial finishes of every sort; will be happy to offer their technical services so that your product may gain distinction of appearance through a superior finish.

Let our technicians tackle your finishing problems—no obligation, of course!

Barrett Varnish Company

1532 S. 50th COURT CICERO 50, ILLINOIS

a complete line of dependable industrial finishes since 1870

The plugs should be slightly tapered —just enough to permit them to be inserted into their respective holes with a slight twisting motion.

It is desirable to keep the size of the plugs to a minimum, especially that part of the plug that extends outside the hole, to reduce the area of obstruction while spraying the paint.

If an area of surface surrounding each hole is to be protected from paint spray, you may fit a rubber washer over the tapered end of the metal plug so that when it is inserted into the hole, the washer will protect the area of the surface not to be coated. If your volume of production on these metal frames is limited, you may be able to substitute corks for the ⅜, 7/16 and ½-in. holes. For smaller diameter holes I do not believe corks will prove to be satisfactory.

Of course, if the paint coating did not require baking, you could consider the use of plugs made of rubber, wood or paper.—*P. C. Bardin.*

Finish Picture Frames After Assembly?

We manufacture an expensive line of picture frames. The usual method is to finish the mouldings in long lengths, then cut and assemble the mitered pieces into frames, but we want to cut and assemble the mouldings into frames, and then finish.

At present we use steelwool, rubbing by hand to reduce the gloss and obtain the right sheen to the finish on the curved surface of wide mouldings. What is your opinion on the use of a power buffing wheel or lambs wool wheel to speed up this operation? —*M. W. Co.*

Not knowing the width or profile of mouldings used in your frames, it is difficult to say what can or cannot be used to advantage for rubbing the finish. Offhand I would say: stay away from buffing wheels! It will be very difficult to get into the mitered corners of a curved moulding frame. This is especially the case if or when the moulding has sharp radii in some areas, such as a narrow groove. For the same reason you should not use pumice or rubbing compound. This rubbing compound will become lodged in the grooves, especially at mitered joints, and it will be difficult to remove.

I think hand rubbing is your best method if you insist upon finishing the frames after they have been put together. Either continue with the steelwool and rubbing lubricant, or you might try a stiff bristle brush and the lubricant. You may have to experiment with several brushes before deciding on the correct degree of stiffness of the bristles; you may find that the bristles must be cut shorter. Perhaps brushes of different width will work to advantage on different frames.

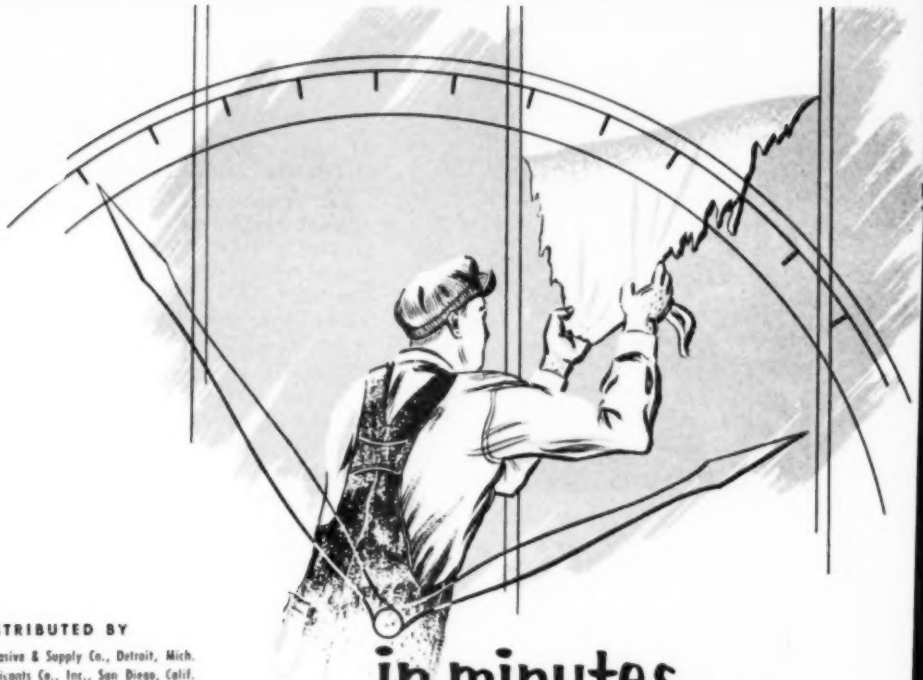
If you wish to use a portable, power-driven lambs wool wheel to bring up the sheen, it can do no harm. However this wheel should only be used after the frame has been rubbed and cleaned up. I am not sure that this will save any appreciable time over hand polishing with a soft cloth. —*J. R.*

Two Executives Promoted by Devoe & Raynolds

Two promotions in its executive staff are announced by Devoe & Raynolds Co., Inc., New York City.

J. C. Knochel, a vice president, has been appointed president of Truscon Laboratories in Detroit, a division of the parent firm. He succeeds George L. Turner who retires after 36 years service.

J. Harold Kolseth has been elected executive vice president. He has been vice president in charge of all trade sales divisions.



in minutes... peel spray-booths clean

"LIQUID ENVELOPE"

The ORIGINAL Time-Tested Strip-Coating

It's the quick, labor-saving, safe way to keep booths firesafe, better illuminated, better ventilated.

"LIQUID ENVELOPE" is non-toxic . . . does not contain dangerous chlorinated solvent. It will not corrode metal walls or ventilating ducts. And it's flame proof and fireproof . . . dry film will not burn or support combustion.

Costs less than hand-scraping or grease-papering as hundreds of plants have proved to their complete satisfaction year after year.

NEW-USERS SAMPLE OFFER

5-gallon test-sample at the drum-lot price. Order now from nearest distributor—start saving soon.

BETTER FINISHES & COATINGS, INC.

268 Doremus Avenue, Newark 5, New Jersey

122 East 7th Street, Los Angeles 14, California

DISTRIBUTED BY

Abrasive & Supply Co., Detroit, Mich.
Aviation Lubricants Co., Inc., San Diego, Calif.
Bay State Spray Equipment Co., Springfield, Mass.
C & H Supply Co., Seattle, Wash.
The Dean & Barry Co., Columbus, Ohio
Eastern Spray Equipment
c/o Mitchell-Love, Philadelphia, Pa.
Edgcomb Steel of New England, Inc., Milford, Conn.
Eley's Newport News, Va.
Ellicott Paint Co., Inc., Buffalo, N. Y.
Finishing Equipment & Compressor Co.
Kansas City, Mo.
John Henry Foster Co., Minneapolis, Minn.
Franklin Supply Co., Providence, R. I.
General Spray Equipment Co., Boston, Mass.
H. J. Gettemueller Co., Inc., Baltimore, Md.
Globe Chemical Co., Louisville, Ky.; Cincinnati, O.
The Hubbard Co., San Francisco, Calif.
Kellermann Paint Co., New York, N. Y.
Koehler Rubber & Supply Co., Cleveland, Ohio
The Lea Manufacturing Co., Waterbury, Conn.
The Leonard Co., St. Louis, Mo.
Melson Industrial Supply Co., Grand Rapids, Mich.
Mid States Industrial Corp., Rockford, Ill.
Vic Miner Co., Toledo, Ohio
O'Donohue Sales Co., Milwaukee, Wis.
Paints & Lacquers, Inc., Chicago, Ill.
Pauli & Griffin Co., San Francisco, Calif.
Plastic Paper Co., Los Angeles, Calif.
Porter Paint Co., Louisville, Ky.
Protective Prod. Distributors, Hamburg, N. Y.
R. W. Renton and Co., Cleveland, Ohio
Hugh Russell & Sons, Ltd., Montreal, Can.
Scobell Chemical Co., Rochester, N. Y.
Sprayway Co., Los Angeles, Calif.
Suppfee-Biddle-Stoltz Co., Philadelphia, Pa.
(Industrial Division)
Tanner and Co., Indianapolis, Ind.
Tri-State Spray Equipment & Compressor Co.,
Omaha, Neb.; Rock Island, Ill.
In Europe:
Jenson & Nicholson, Ltd., London, Eng.

Oil and Moisture Separator Has New Features

An oil-and-moisture separator for cleaning compressed air is a product in the DeVilbiss Co.'s line of spray painting and allied compressed air equipment. The unit is available with or without a regulating device.

The new unit, designated P-HLE, is a high capacity 50-cfm., with power regulation, assuring steady uniform air delivery. If regulation of air is not desired, DeVilbiss sells the oil and moisture separator alone and this carries the designation HRE-501.

The new DeVilbiss Co. oil and moisture separator, complete with pressure regulation equipment is shown. The operator is opening the drain valve at the base of the unit to remove trapped oil and water.

The combination unit, embodying separator and regulator, will regulate pressures up to 135-psi. from an air line carrying pressures up to 250-psi. The unit has a length of 15-in., is 8½-in. wide when it is equipped with valves and has a depth of 8½-in.

The oil and moisture separating unit has a centrifugal type oil and water eliminator which is all metal and does not require replacement or maintenance. The filter is a permanent type which has long life and is easily removed for cleaning. The filter chamber is drained by a simple valve at the bottom of the unit.

Additional information and literature may be obtained by writing to the DeVilbiss Company, 300 Phillips Ave., Toledo 1, Ohio.

Motor Driven Pump in Barrel Degreaser

Baron Industries of Los Angeles reports fast, economical cleaning of oily parts with their new Super Barrel, the lowest priced vapor spray degreaser in the United States.

An important feature on the degreaser illustrated here is the motor driven pump and spray lance for flushing parts with solvent to facilitate cleaning.

Rapid parts cleaning is accomplished with non-inflammable trichlorethylene vapors. Parts are lowered into the vapor zone and automatically cleaned. When they are removed, they are warm and

PAINT SHIPPING BOSS WITH A "3000-GALLON RESPONSIBILITY"

...AND A BUILT-IN CONSCIENCE TO MATCH!

That's Mearl C. Meister, Ferbert-Schorndorfer's 31-year veteran shipping supervisor.

Whether he is supervising the filling of a 5-gallon sample or checking out a 3000-gallon tank wagon, Mearl and his 25-man crew take the old-fashioned viewpoint on service . . . "do it, and it's done!" Conversely, his viewpoint on shipping methods is as up-to-date as a new F-S formula . . . the tank wagon system eliminates filling drums, gets the shipment into the big user's tank on schedule, and at the same time diverts dock energy to hustling out F-S drum-lot shipments for smaller quantity users.

There are 20 to 30-year experts all down the line to supervise the formulation, production, and delivery of F-S product finishes . . . reason enough that an equal number of 20 to 30-year veterans are included in Ferbert-Schorndorfer's growing list of customers.

Write for details on how you can put the F-S team into your plant serving your product finishing requirements.

THE FERBERT-SCHORNDORFER COMPANY

A DIVISION OF AMERICAN-MARIETTA COMPANY

12815 Elmwood Ave. F-S **Cleveland 11, Ohio**

dry, ready for further processing. The work never enters dirty solvent, just pure vapors.

The barrel requires only seven gallons of solvent for operation, and further savings can be realized by the reclaiming feature of these degreasers. When the solvent has become dirty, it can be automatically reclaimed and used again.

A standard 55 gallon galvanized drum is used as the degreasing chamber; this gives a working area 23-in. in diameter with a 20-in. vapor depth. Further information and literature is available from Baron Industries, 241 W. Ave. 26, Los Angeles 31, Calif.

Epson Resin Coating Stripper

Northwest Chemical Co., 9310 Roselawn, Detroit 4, Mich., announces Liquid Stripper No. 9, a new compound designed specifically to remove a wide variety of Epon Resin base coatings. It will strip Epon finishes from both ferrous and non-ferrous metals at temperatures ranging from room to 190° F. at time cycles of from two minutes to two hours.

With the exception of aluminum which it will etch, Liquid Stripper No. 9 will not attack the base metal. Being non-corrosive it can be used in plain steel tanks. No. 9 presents no fire hazard in that it will not flash even at boiling temperatures, but it should be used with good ventilation.

"Phosteem" by Neilson Chemical

The Neilson Chemical Co., 6564 Benson St., Detroit 7, Mich., announces the introduction of its new "Phosteem" product and process for cleaning and phosphatizing metal surfaces prior to painting.

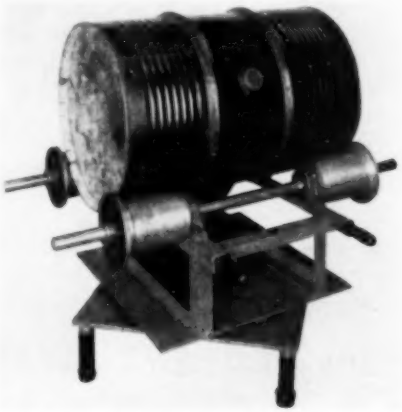
This product and process offer a simple and effective method of cleaning and phosphatizing metal surfaces for paint finishing. It is effective on ferrous metals, aluminum alloys, zinc-coated surfaces—in fact, practically any type of metal alloy to be painted.

The plant space required for the "Phosteem" process is small and the process can be used in almost any convenient available section of the plant. Send for "Phosteem" literature, Form 54-122-B2.

Drum Painting Stand Is Power Driven

A device for rotating 55-gallon drums at 30-rpm. while they are being painted, by spray gun or hand brush, is offered by The Vol-U-Meter Co., P. O. Box 54, Buffalo 16, N. Y. One set of guide wheels is motor driven through a speed reducer. The other set is mounted on an idle shaft. Both shafts revolve in ball bearings.

The top frame which carries the mechanical equipment can be manually turned sidewise as much as 180°, so the operator can easily paint both ends of every drum. This top frame is also hinged, so the end with han-



Top frame can be swiveled to right or left.

Another Reason They'll Buy Your Product . . .

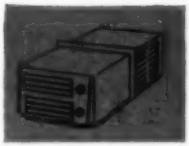
POLYCHROMATIC

Industrial Finishes

FOR METAL • PLASTICS • COMPOSITIONS • WOOD

using REYNOLDS NON-LEAFING ALUMINUM PIGMENTS

WRINKLED
For glare-free surfaces . . . produced during short baking operation . . . opaque enamel base has good defect-hiding properties.



HAMMERED
Achieves the effect of ball peening . . . gives a multi-toned texture . . . conceals minor surface defects.

REGULAR
The most iridescent polychromatic finish . . . either translucent enamel or lacquer may be used as color base.

Specify Reynolds Aluminum Pigments for your polychromatic finishes—Regular, Hammered or Wrinkled—for consistency in color and result and constant high-quality and performance.

Reynolds patented* non-leafing aluminum pigment remains evenly dispersed as the coating sets-up. The aluminum flakes produce depth and iridescence.

Reynolds technicians will work with you and your finishes supplier to achieve the right polychromatic finish for your product.

Reynolds Metals Company, 2533 South Third Street, Louisville 1, Ky.

SEE "Mister Peepers", starring Wally Cox, Sunday nights on NBC-TV.

*U.S. PATENTS 2,309,577 AND 2,293,731; CAN. PATENT 472,685

REYNOLDS ALUMINUM

MODERN DESIGN HAS ALUMINUM FINISHES IN MIND

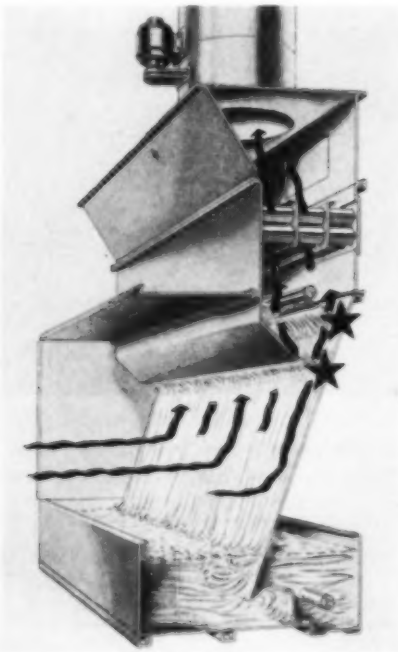
dles can be lifted to make the painted drum roll forward.

Base of frame is mounted on 1½-in. pipe legs. Nipple lengths can be changed to get desired drum height.

Binks Water Wash Spray Booth Has Several New Features

Binks Mfg. Co., 3116 Carroll Ave., Chicago 12, Ill., offers a water wash spray painting booth designed for economical use in normal industrial production. It has been typed as the Style "D" Booth.

This new booth supplements the Type DUC high production water wash spray booth introduced by Binks last year. The Style "D" Booth is not designed to compete with the extremely high efficiency of the DUC Booth.



Overspray and fumes from painting operations are drawn through two separate, thorough washing operations. Velocity of the air passing through the wash chamber never exceeds 600-f.p.m. and, as a result, utilizes the full efficiency of the water action. This scrubs the atomized paint pigment and vehicle from the air and deposits them in the collecting pan below.

The cleaned air then passes through a series of staggered arrestor plates which remove free moisture before the air is exhausted to the outside. Stacks and fans stay cleaner longer. Fire hazard is greatly reduced.

A circulating pump forces water from the collecting pan through a special manifold which sprays it in two directions in an unbroken curtain. Excess water passes the manifold and returns to the collecting pan. This continuous circulation flushes the manifold and eliminates clogging. Once the booth is in operation no water is required except to replace that lost through evaporation.

For further information about many other practical features of this new water wash spray booth, communicate with Binks Mfg. Co.

New Rayon "Fire-Flock" in 10 Brilliant Fluorescent Colors

Ten new ultra-brilliant flock colors in fluorescent hues, which are easy to apply with all types of equipment without "pilling" or "balling," are announced by Cellusuede Products, Inc., 500 N. Madison St., Rockford, Ill. The new flock, marketed under the trade name of "Fire-Flock," is available at no extra cost.

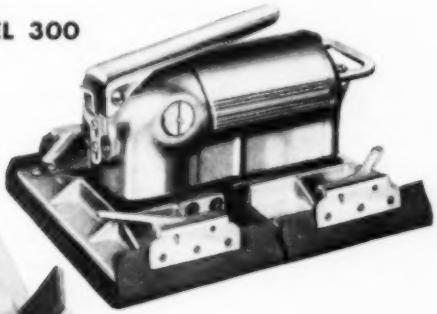
It is especially processed from the same viscose rayon as Cellusuede's regular line of rayon flock and is readily adaptable to a wide range of uses—for greeting cards, box decora-

National Sanders

CAN SPEED PRODUCTION IN YOUR FINISHING OPERATION

Whether you need an orbital action sander for fast stock removal, or a straight-line action machine for working with the grain, National has the sander you need. They have a proven record of reliable and efficient service, long life, ease of operation, and for producing the best sanded surface in the shortest possible time. Let us send you full information . . . write today.

MODEL 300



NATIONAL NS SANDERS

NATIONAL AIR SANDER, INC.

2820 AUBURN ST., ROCKFORD, ILLINOIS

tion, gift wrapping and packaging material, all types of show and window displays, etc. The ultra-brilliance of the new colors adds extra vigor and sales appeal and increased color visibility over ordinary hues.

One of the important merits of "Fire-Flock" is that it can be applied equally well with spray, mechanical beater-bar or electrostatic equipment. The several types of electrostatic equipment, however, require flock processed to suit individual equipment. Therefore, specifications indicating the type of electrostatic equipment in use is necessary to obtain proper material and avoid application trouble.

Spray Decorating Machine; All Electric; Automatic

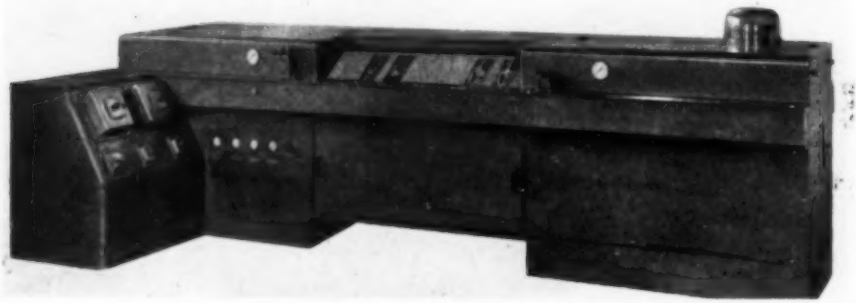
An all-electric automatic spray decorating machine with an integrated mask washer has been designed and produced by Conforming Matrix Corp., 331-1 Factories Bldg., Toledo 2, Ohio. It accommodates the spraying of small parts, or pieces up to 24-in. long and 7-in. wide.

The washing of one set of masks takes place in this traversing gun machine during the painting operation, without the necessity of removing masks. The operator merely throws a switch and immediately clean masks are shuttled into position for painting. The machine can be designed for two operators employing as many as eight masks.

Machines already in use, are producing 2400 pieces an hour per operator. Two operators bring this up to 4800 pieces an hour. Parts can be painted with the guns traveling forward and also on the return stroke.

The single operator machine requires only four masks, two in the painting area and two in the washer. With only four masks required a great saving is realized in mask investment. This machine, with one operator, can produce the normal work of from two to three operators, using from three to four times the number of masks in hand operated work.

The mask washing continues even though the painting operation is momentarily suspended, making sure that the masks are always clean when work is resumed. The wash cycle is dial controlled up to 2 minutes. The wash pattern is very flexible and adjustable to insure adequate cleaning of both the top and bottom side of any specific mask. Mask washing is accomplished by a high pressure system with a series of non-clogging nozzles arranged on ports set on ½-in. centers.



This spray decorating machine includes automatic mask washing.

with variety of unique qualities that meet almost any production finishing requirement!

S-1172 White Baking Enamel is adapted to a variety of baking cycles. Highly *resistant to salt spray* and *humidity. Excellent color* and *gloss retention. Superior adhesion, hardness, flexibility* and *durability.* Ideal for all types of appliances, cabinets, steel furniture.

S-1226 Acid-Resisting, White Baking Enamel. Highly *resistant to alkalies, detergents and greases* as well. Recommended for laundry and laboratory equipment, kitchen cabinets, appliances, shower stalls.

PX-8403 Heat-Resistant, White, Alkyd Baking Enamel is the *most non-yellowing* on the market. In addition, it also has all of the outstanding qualities of S-1172 and S-1226. Recommended for water heaters, ranges, washers, dryers.

THE O'BRIEN CORPORATION, SOUTH BEND 21, INDIANA

Write today for data on O'Brien's New White Baking Enamels!

O'BRIEN

INDUSTRIAL Since 1875 FINISHES

Non-Etching Aluminum Cleaner

Enthone, Inc., 442 Elm St., New Haven, Conn., has developed a new detergent for rapidly cleaning aluminum. "Aluminum Cleaner NE-6" is mild in alkalinity, does not etch metals either at the air interface or in contact with other metals, and at the same time it has high detergency. It is claimed to have remarkable ability to disperse oils and to remove marking ink and crayon normally present on aluminum sheets.

The cleaner is recommended for cleaning cast and wrought aluminum prior to anodizing, chromate treatments and organic finishing.

The cleaner can be put in steel or stainless steel containers, and it is normally used in the concentration range of from 6 to 8-oz. per gallon.

Portable Spray Unit

Commercial speed and quality spraying from 110-115 volt current is now possible with a new portable compressor announced by the Eclipse Air Brush Co. Designated Model 505, the unit is designed for high efficiency painting with low pressure nozzles and guns, especially for structural painting.

Portable equipment is easily moved to job.

The single cylinder compressor is directly driven by a ¾-hp. 115-volt, 60-cycle motor and delivers over 5-cu. ft. of air a minute at 40-psi. Safety and performance features include, tamper proof automatic unloader built into the piston head, electric switch with thermal cutout, safety valve, no exposed moving parts, a kick bar that prevents upsetting and provides a rack for storing hose and cable.

Complete details are available from the Eclipse Air Brush Co., 390 Park Ave., Newark 7, N. J.

Adjustable Conveyorized Spray Washer by Detrex

The new Series 30, Standard Unit, Monorail-Type Spray Washer, announced by Detrex, can be used as a single unit or combined on the premises into a multi-stage washer to suit the needs of the user, without expensive alterations or assembly problems.

Units can be assembled, either by bolting or welding, and offer a wide variety of combinations. A range of sizes from a spray length of 4-ft. up through 10-ft., in 2-ft. steps, is available. Each washer will take work up to 30-in. wide, but removable baffles can be used to reduce the opening width where operating economy calls for a narrower opening. Seven different heights are available in the washer openings, from 24-in. upward in 6-in. steps to a height of 5-ft. The user can vary the silhouette with synthetic rubber curtains which protect against overspray and aeration.

Spray nozzles are mounted on swing-ells and are adjustable for effective contour spraying of any sur-

The MONROE SANDER Corporation

PRODUCT-FINISHING ENGINEERS

—ARE PLEDGED TO **REDUCE** *YOUR PROTECTING and DECORATIVE COATING* **COSTS**

LET A MONROE SANDER SPECIALIST

analyze your particular problem—absolutely without obligation. The Monroe Sander Specialist will visit anywhere to explain our technical know-how that GUARANTEES TO REDUCE YOUR COSTS.

Whatever industrial finishing problem you may have — from MECHANICAL ENGINEERING requirements to better PRODUCT FINISHING—Monroe Sander Corporation's Know-How, Experience, Ingenuity will solve it to your best advantage.

We will design and supply prints to create or innovate entire finishing systems—Ovens, Tanks, Conveyors for Spray or Dip . . . and Material Handling Problems in finishing.

Our great record of coating achievements in the military as well as in a diversified field of products assures you that The Monroe Sander Corporation is exactly your kind of organization to work with.

MONROE SANDER Corp.

10-18 Forty-Sixth Ave.
Long Island City
New York

Manufacturers of Industrial Paint & Enamel Finishes;
Specialists in Product-Finishing

face. Either steam or gas may be used for heating the cleaning solution. The steam units are designed to operate on 50 to 125-lbs. pressure.

Exit, entrance and drain zone sizes are designed to eliminate overspray.

These spray washers are designed for the use of phosphate coatings. For additional information write Detrex Corp., Dept. MW-109, Box 501, Detroit 32, Mich.

Heat Resistant Finish Used on Jet Engine Parts

The stable film properties and color retention of a heat resistant finish are shown in its ability to protect jet engine parts.

Solar aircraft provides added protection to jet engine parts by using a silicone-base heat resistant finish. First used as a touch-up in finishing the aluminized metal surfaces, this finish proved to be so durable at 800° F. heat tests, and so easy to apply, that it is used to give an all-over coating to many parts. Here an operator is spraying a J35 afterburner shroud assembly after masking critical hole patterns and thread attachments. Photograph, courtesy of Midland Industrial Finishes Co.

The accompanying picture shows a special silicone base heat resistant finish, "Sicon," being sprayed on an air cylinder for the J-48 Afterburner manufactured by Pratt & Whitney Aircraft.

"Sicon" is a product of Midland Industrial Finishes Co., Waukegan, Ill. It is designed to render complete protection in the 1000°F. range for such parts as jet engine air cylinders, auto exhaust mufflers, combustion chambers of oil heaters, etc. It is also available in attractive decorative colors for use in the 500°F. range as a decorative finish for home incinerators, radiator grilles, truck heaters and many other appliances. Complete case studies and technical data are available from the manufacturer.

Safe Paint & Varnish Remover

A new non-inflammable paint and varnish remover, fast-acting and powerful, is announced by The Glidden Co., 11005 Madison Ave., Cleveland 2, Ohio. The new remover, Glid-Strip, removes all paints and varnishes, including latex-base paints and baked enamel finishes.

Glid-Strip will remain wet and active up to six hours, permitting prolonged action on hard-to-soften finishes. On ordinary painted surfaces, Glid-Strip goes into immediate action, loosening and wrinkling the film for quick and easy removal. Its adhesive qualities make it equally effective on vertical as well as horizontal surfaces.

Surfaces treated with Glid-Strip may be bared easily with a broad edged scraper. On rounded or rough surfaces, steelwool is effective.

Glid-Strip's active ingredients are held against the surface by a film-forming substance which stops evaporation, affording Glid-Strip ample time to penetrate, permeate, and destroy all films of paint coatings.

If you think you can't afford a paint circulating system, Here's News

● Ever say, "Our finishing operation just isn't big enough" . . . or "We can't justify a complicated, highly engineered paint spray system"?

The answer to problems like these lies in the basic simplicity of the new low-cost paint circulating systems perfected by Graco. First . . . Graco air-operated Paintmaster paint pumps work directly from original containers . . . 55 gallon drums or 5 gallon pails. *Drums do not carry pressure.* No messy, costly transferring. Paintmasters can supply up to 8 spray guns, in booths hundreds of feet from your supply room. The paint is continuously mixed by a separate air-driven agitator.

Installation costs are kept low by using economical, easily bent tubing to supply spray booths. Graco engineers can develop the best system for your particular operation. The famous Graco two-pump-per-color system (illustrated here) includes one Paintmaster to supply the system and one to prepare the next drum for simple, instantaneous changeover.

Graco low-cost circulating systems are handling as many as 48 colors! Let us show you what we can do for you. Write us today, and ask for Paintmaster Circulating System Literature.

GRACO

Paintmaster

GRAY COMPANY, INC.
93 Graco Square
MINNEAPOLIS 13, MINNESOTA

Regional Offices:
New York, Philadelphia, Detroit, Atlanta, Chicago, San Francisco

Temporary Coat to Catch Dust; Removed Easily and Quickly

Here's a dust control compound—a tacky removable coating that catches any flying dust or dirt in the air surrounding your finishing facilities. Just spray it on walls, posts, ceilings and whatever equipment is permissible to be coated temporarily. Being tacky like flypaper, it catches and holds any dust or dirt or lint that may be present or which may enter the finishing room. When any dust touches the coated (tacky) surface it sticks; doesn't fly any more; in other words, Mr. Dust Devil loses his wings. The coating remains tacky until it becomes loaded with dust. Then it can be quickly and easily cleaned off with water.

This dust catcher coating is called Sno-Flake La-Tac No. 1 and is a product of Sno-Flake Products Co., 2485 Beaufait Ave., Detroit 7, Mich.

Strypp-Away Removes Epons and Other Tough Finishes

"Strypp-Away," a new, modern heavy duty, liquid stripper to remove tough, modern finishes like Epons and other chemically resistant finishes is now being marketed by The DuBois Co., Cincinnati 3, Ohio, and Los Angeles 33, Calif., manufacturer of chemical cleaning compounds for industry and institutions.

"Strypp-Away" may be used directly from the container or diluted with water, depending on the job to be done. It will hold up for long periods of heating without loss or strength and may be used at temperatures as high as 220° F.

In one demonstration this new stripper removed an Epon varnish in 15 minutes heated to 200° F. as compared to 50-oz. to a gallon of alkaline stripper heated to 240° F. and requiring five hours for removal.

Automatic Viscosity Control

The Norcross Corp. has developed a viscosity control to meet the requirements for production painting.

In a new flow-coating installation for electric range parts at the General Electric Plant in Louisville, Ky., Norcross viscometers are used to automatically record the viscosity every three minutes. When the paint viscosity increases because of evaporation of the solvent the viscometer opens a solenoid valve to add the necessary make-up solvent to accurately maintain a constant viscosity.

For further facts, write Norcross Corp., Dept. # N24, Newton 58, Mass., for Form VA-16A describing this Viscosity Control System.

Safe Solvents Storage Cabinet

A double-wall steel cabinet, with shelves and doors, for safe storage of solvents and flammable liquids within the plant, is offered by the Protectoseal Co., 1920 S. Western Ave., Chicago 8, Ill.

It is designed in accordance with specifications outlined by the National

Finish, grey; size 43x65x18-in. Wt., 380-lbs.

WOOD GRAINING

Or Similar Patterns

On Flat Stock Or Complete Assemblies

the ROTO GRAINING MACHINE

operates in vertical or horizontal position

Wherever wood grain reproduction or verigated and similar patterns are required on either flat stock or complete assembled units, the ROTO Graining Machine will be found most efficient and economical in operation, as well as faithful in reproduction.

Three different types of graining machines are available. The type illustrated operates in either vertical or horizontal position, and will accommodate fully assembled cabinets or flatstock in thicknesses up to five inches.

Other models include a horizontal 50-inch graining machine, which will take up to 48-inch flatstock material. A small machine is available for match graining the edges of plastic covered tables.

We are also in position to design and build special graining equipment where conventional or standard machines and methods are not adaptable. A trained finishing engineer is available to supervise installations and initial finishing problems.

For further information, write, wire or phone: NEwmark 8-1778, NOrmandy 5-6505

ROTO FINISHING SYSTEMS

Graining Machines and Finishing Equipment

1105 Glencoe Avenue Compton, California

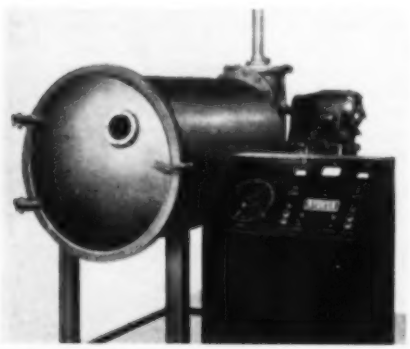
Board of Underwriters, and the National Fire Protection Association.

The cabinet provides storage for 45 gallons—well within the specified 50-gallon limit—and is of steel construction, with sturdy riveted and spot-welded double walls of 18-gauge terne plate and an air space of 1½-in. between all walls. It has three steel shelves and a double door which provides easy access to every can.

The doors have a spark-proof 3-point lock with key, and all closure contact points are non-sparking. The door sill is raised 2-in. above the bottom of the cabinet and is liquid tight to this point. The words "Flammable, Keep Fire Away" are stenciled in large letters on the doors. Two vent openings of 2-in. standard pipe size are located near the top of one outside wall and close to the bottom of the opposite outer wall. These vent openings have screw caps and fire screens.

Stokes Vacuum Metallizer

A small vacuum metallizer, designed to meet the needs of firms with moderate production requirements, such as jewelry manufacturers, custom plastics molders, custom metal finishing plants, and other manufacturers who wish to do their own finishing but have a relatively small volume of work, has just been introduced by the F. J. Stokes Machine Co., 5500 Tabor Road, Philadelphia 20, Pa.



The new 36-in. vacuum metallizing unit.

The new unit has an integral vacuum pumping system, consisting of oil diffusion pump and rotary mechanical fore-pump, which will bring the chamber down to the metallizing pressure of 0.5 micron in about 10 minutes. A console-type control panel groups in one convenient place all push buttons, starters, vacuum gages, rheostats, etc.

The work-holding rack of the new Model 428 will accommodate four standard rotating fixtures identical to those used in larger metallizers.

"Cold" Degreasing Solvent

A new nonflammable solvent for use in metal working is announced by The Dow Chemical Co., Midland, Michigan.

The product is Chlorothene (Inhibited 1,1,1-Trichloroethane). According to Dow, Chlorothene fulfills the industrial need for a low-toxicity, nonflammable solvent to be used in cold cleaning and cold degreasing operations. Chlorothene is particularly suited for these and other applications formerly reserved for the more toxic or more flammable solvents.

"Metal Stop" Is Gray-White; Has Other Features Too

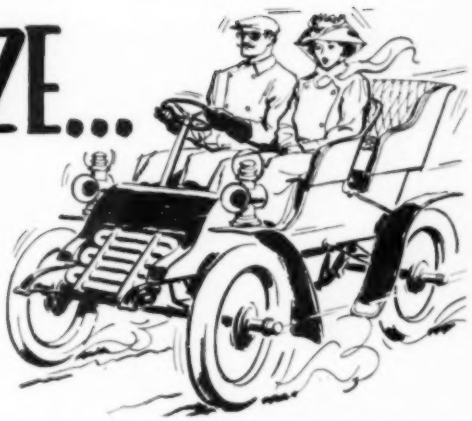
Many stop-off paints are heavy lacquers and colorless, which makes it difficult for the worker to distinguish the part to be protected from the part to be sprayed. Also, some stop-off paints pose a clean-up problem because they are sticky and not easily cleaned from the containers which are used to hold them.

Well aware of this problem, the Park Chemical Co., 8074 Military

MODERNIZE...

USE

Electro-Cold STRIPPER



NON-INFLAMMABLE
NON-INJURIOUS

Removes hard baked-on enamels, primers, wrinkles, hammers, synthetics, japans, and 3M Scotchlite in seconds in most cases, and minutes in others. *The finish literally pops off!* There's no delay in getting metal items back in production when ELECTRO COLD STRIPPER is used.

It is safe, non-inflammable and requires no heat. Used by leading industrial concerns and Government agencies. TRY IT!

Write for samples—or order 5 gallons at drum price.

ALLIED FINISHING SPECIALTIES CO.
2641 W. GRAND AVENUE • CHICAGO 12, ILLINOIS

NEWCOMB-DETROIT

PIONEERS IN ENGINEERING, MANUFACTURE AND INSTALLATION OF

INDUSTRIAL OVENS
SPRAY BOOTHS
PARTS WASHERS
DUST COLLECTORS
AIR SYSTEMS

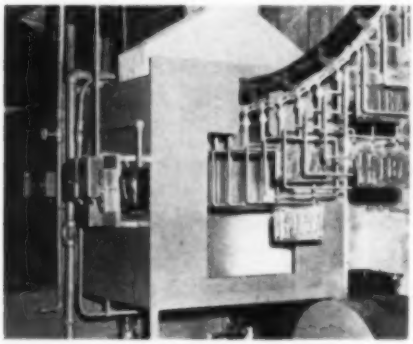
ESTABLISHED 1912
DETROIT DIVISION—GRAND RAPIDS DIVISION—
NEWCOMB INDUSTRIES LTD., WINDSOR DIVISION

For Bulletins and Quotations, Wire, Write or Call—
NEWCOMB-DETROIT
5753 Russell St.,
Detroit 11, Mich.
TR 3-2100

Ave., Detroit 4, Mich., developed "Metal Stop," a new product that has a distinct gray-white color which readily shows up the part area to be protected. Its edge aligning is sharp and it is fast drying. It has free flowing characteristics and is water soluble. It provides a smooth, even coating, is easy to apply, easy to clean up, and leaves no streaks or unprotected areas.

License Plate Finishing Machine Installed

A new machine that finishes automobile license plates has been designed, built and installed in New Jersey State Prison at Trenton by the Industrial Washing Machine Corp. of Matawan, N. J. Designated as Model OM 24 X 30 (WBD), the machine processes 1200 sets of two plates each per hour.



This machine processes 1200 sets of two automobile license plates each, per hour.

The steel plates are fed to the machine after stamping, for coating and preparation for painting. The machine washes, rinses, Bonderizes, cold rinses, applies a chromic rinse and dries. All this is accomplished within a space 60-ft. long, 7-ft. wide and 10-ft. high.

White "Tile" Can Be Squeezed From A Tube

Remarkable new "Stop Gap" caulking compound that actually looks and feels like white tile, yet can be squeezed from a tube to fill in cracks and crevices, is offered by Sapolin Paints Inc., 229 E. 42nd St., New York 17, N. Y.

This new plastic rubber compound, developed after years of laboratory research, has been so formulated that it will never shrink, crumble or discolor with age. It is waterproof and helps to prevent rust and rot. Dries overnight to a smooth flexible inlay. Its tile-like surface can be easily repainted any color to conform with any decorating scheme.

Strong Sealing Tape

A new water-resistant, high-strength sealing tape for cartons, paper tube ends and bundles is announced by the Permacel Tape Corp., New Brunswick, N. J.

Paper-backed and specially impregnated with a waterproof rubber resin composition, the new tape, P17, is designed to withstand extremely rough handling in shipment under both dry and wet conditions. It doesn't split or tear at package closure points.

Protective Tape Resists Outside Exposure

A new paper-backed protective tape that is 100% resistant to outdoor exposure for protecting smooth surfaces during storage and fabrication is announced by Minnesota Mining & Mfg. Co., 900 Fauquier St., St. Paul, Minn.

Tradenamed "Scotch" brand protective tape No. 344, the new black paper tape is believed to be the first tape designed to protect polished and finished surfaces against scratches

EPON® RESIN does it!

a tougher, more corrosion-resistant primer for metal lawn furniture . . . *at lower cost*

New Epon primer, formulated by The Glidden Company, Cleveland, is the key to a better finish on metal lawn furniture.

HERE'S HOW...

EXPOSED to blistering sunlight, rain, and often to corrosive salt sea breezes—lawn furniture must have a tough, corrosion-resistant finish.

For this reason, the Troy Sunshade Company has set high standards of durability and appearance for finishes on its quality metal lawn furniture. When metal shortages made it necessary to abandon chrome plating, Troy engineers made a careful study of paints and paint-finishing methods. Tests showed that the *primer* coat was the key to paint durability . . . *and that an Epon resin-based primer gave improved appearance and the highest degree of resistance to corrosion.*

The Epon resin-based primer is applied by rotary spray coating. The finish coat is applied by electrostatic spraying. Both operations are completely conveyorized. Thanks to the excellent adhesion and levelling properties of the Epon primer, expensive sanding operations are reduced to a minimum. Troy engineers estimate that the new finishing system saves as much as a dollar a gallon on materials, in addition to savings in labor costs.

• • •

Call on our sales offices for names of suppliers who sell Epon resin coatings. Write for the full Epon coatings story in the new brochure, "Planning to Paint a Pyramid?"

SHELL CHEMICAL CORPORATION

Chemical Partner of Industry and Agriculture

380 Madison Avenue
New York 17, New York

Atlanta • Boston • Chicago
Cleveland • Detroit • Houston
Los Angeles • Newark • New York
San Francisco • St. Louis

IN CANADA:
Chemical Division, Shell Oil Company of Canada, Limited
Toronto • Montreal • Vancouver

MR.
DUST DEVIL

IS LOSING HIS WINGS
when you use the new

SNO-FLAKE LA-TAC No 1
Dust Control Compound

This material is guaranteed to cut dust and dirt to a minimum.

A must wherever paint is being sprayed

Just spray on walls, ceilings, fans, eliminators, etc.

Easily cleaned off with water

Stays tacky until loaded with dirt

Cuts repair costs

Gets the dirt *before* it gets on to your job

For complete information, write

Sno-Flake Products Co.
2485 Beaufait Avenue • Detroit 7, Michigan

and die marks during and after fabrication, shipment and storage. It has a film-like adhesive that sticks upon contact to stainless steel, aluminum, glass, plated metals, plastic glass, polystyrene, and polyester; is available in widths of 12, 24, and 36-in.

"Dustix" Tack Rag

A new tack rag called "Dustix," when wiped over surfaces to be coater, or finished, picks up dust, lint and dirt particles—even particles too small to be seen with the naked eye. It stays soft and tacky indefinitely, is safe from possible spontaneous combustion, causes no fire hazard and is always ready for use.

"Dustix" is a product of the Industrial Division of Modern First Aid Necessities Co., 737 W. Randolph St., Chicago 6, Illinois.

Safe Metal Bright Dip

RCB is a safe bright dip for brass, copper, bronze, nickle-silver, phosphor bronze, and most copper alloys. It is safe to handle, requires no special ventilation, will not discolor silver solder, and removes atmospheric oxidation without etching. It bright dips and passivates the metal, making it resistant to oxidation for a year or more, dependent on type of exposure.

For further facts, write to Rossaul Co., 170 Fifth Ave., New York 10.

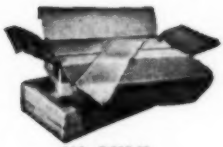
Metal Show in Chicago Nov. 1-5

On Monday, Nov. 1, 1954 and continuing through Friday, Nov. 5, of that week, the American Society for Metals will present the 36th Annual National Metal Congress and Exposition—"The Metal Show"—in Chicago, Illinois.

The National Metal "Congress" will be held in the headquarter hotels of the participating Societies; the National Metal "Exposition" will be held in Chicago's International Amphitheatre, Halsted at 33rd St.

For Dust Free Finishes!
BOND TACK CLOTH

IN ROLLS
Cut off any size piece to use as needed.



IN BULK
Cut and folded. Ready to use.

STAYS SOFT AND TACKY
A SPECK-FREE FINISH EVERYTIME

Now Available in Rolls or Cut Bulk—White or Gold. In Three Different Types of Cloth

Get your Tack Cloth packed just the way it's easiest for you to use . . . either in 150 yard rolls of 36" wide cloth or in handy cartons . . . 100 or more Tack Cloths to the carton.

No matter which way you buy it, you can be sure that every square inch will stay SOFT and TACKY until the very last bit is used up!

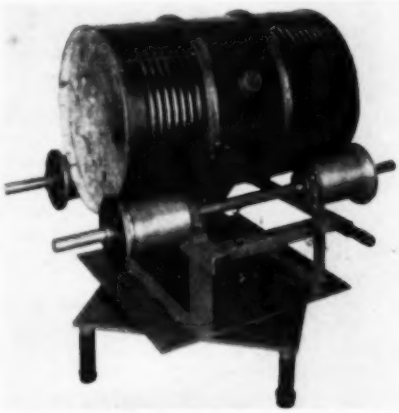
The Cut Bulk size is 18" x 36" . . . folded to 4½" x 18" for ease of handling. ALL BOND TACK CLOTH is **Spontaneous Combustion Proof, Lint-Free** and **Wax Free.** Gives a sparkling speck-free Finish **every time.** Clean and sanitary. No waste.

TRY THEM and COMPARE RESULTS.
Samples Gladly Sent Upon Request.

BOND CHEMICAL PRODUCTS CO.
"The Tacky Wiper Specialists"
2641 N. CLYBOURN AVE. CHICAGO 14, ILLINOIS

Also Individually Packed in Glassine Envelopes—144 to the Carton

A Warranty of Satisfaction in Every Carton



Shown with cone pulleys for two drum sizes. When making inquiry, give voltage, phase and cycle of electric current, for explosion proof motor procurement. Also, drum capacities to be finished.

DRUM PAINTING STAND

Designed for the efficient painting of drum exteriors, using either gun or brush methods.

The container is motor rotated at a convenient height at 30-rpm. for side painting and can be manually turned 180 degrees to finish both ends, making it possible to complete the entire exterior without extra steps.

Top frame is hinged to discharge drum without handling or marring the finish. Low frame brings drum to a convenient height for brush or gun work. Complete data on request.

THE VOL-U-METER CO., P. O. Box 54, Buffalo 16, N. Y.

Industrial FINISHING Editorial

Have You a Finishing or Paint Shop Executive?

Just about every manufactured product today is given a factory coating of some kind. It may be in color or clear or metallic; may be permanently or temporarily protective; may be decorative or simply for identification.

Whether or not you realize it, the finishing room in your plant is quite as important as the machine room, assembly lines or your engineering department. It is not just the last place the product goes before it is packed for shipment. It is not a department that will "get along all right" with a minimum of care and attention. It is not a facility you can forget, believing that after you have spent a lot of money on it for new equipment, it will operate efficiently for an indefinite period of time. It is an important part of your manufacturing business.

The actual running of the finishing room or paint shop definitely belongs in the hands of the finishing or paint shop foreman. This is a big job. The finishing foreman is responsible for getting out the work, and getting it out properly. But he cannot be expected to "go it alone" all of the time.

Some one in an executive position should be thoroughly familiar with the methods, processes, materials and equipment. This executive should make a thorough study of finishing operations as they are carried on in the plant; then study the same operations as they are carried on in several other related plants.

There may be no need for this executive to devote too many hours every week to the finishing department, at the expense of other duties, but he should keep in reasonably close touch with it. What is more important, he will be in position to keep abreast of new methods, materials and equipment. He will see what trends are taking place in his own and other industries, and he can plan accordingly. Then too he is available to talk over things with the finishing foreman. He will be in better position to understand the foreman's language, his problems, his failures and his successes.

Do you have such an executive in your organization? Regardless of the size of your operation, if your product is finished, you need him.

No Space for Oven? Make it "Vertical"

Do you have a space problem in your plant? Need more room for certain production facilities? Of course the simplest solution is to expand—build, rent, lease or acquire additional plant space. However, sometimes this is impossible, impracticable or inadvisable at the time.

Recently I saw how one concern solved a problem of providing the space needed for an additional conveyorized oven. This firm manufactured metal products. As new events worked out, the management planned to add another metal product to its line. Here is when the space problem appeared. The new product had to have a special finish which required a different curing period at a much higher temperature than the other

THINNERS

LOW COST!

- ASK FOR QUOTATIONS
- FORMULATED TO MEET ANY SPECIFICATION
- QUALITY AND UNIFORMITY GUARANTEED

Specialists in Thinners for

- Leather
- Metal Etching
- Polystyrene Plastics

Shipped in Tank Cars, Tank Wagons, Drums or 5 gal. Cans

Synthetic Reducers and Retarders

Write or phone for technical information. Prompt service and deliveries.

ELL-BEE CHEMICAL COMPANY, INC.
Hanover, N. J. Phone WHippany 8-0194
WHippany 8-1277

WATER WHITE LACQUERS & SEALERS HIGH SOLIDS AND NON-YELLOWING

for: — **MODERN FURNITURE**

and all light shades

- LOW COST
- COLD SPRAY
- VARIOUS SHEENS
- EXCELLENT BUILD
- MAR RESISTANT

1. BETTER LOOKING
2. LONGER LASTING
3. EASIER TO APPLY

- Fillers and Stains
- Lacquers—Clear and Semi-Gloss
- Sealers
- Lacquer Enamels—Flat and Gloss
- Synthetic Enamels

You're sure of all with NEW PERIOD

If finishing is your problem . . . check the advantages of New Period Production Finishes. They're formulated with one thought in mind —to give you better looking . . . longer lasting . . . easier to apply finishes . . . at less cost.

Quality Isn't Just Luck

Write for 5 Gallon Working Sample at Drum Price

MANUFACTURERS OF FINE WOOD AND METAL PRODUCTION FINISHES

Established 1917

NEW PERIOD Production Finishes

NEW YORK WOODFINISHERS' SUPPLY CO., INC.

109 Imlay Street Brooklyn, N. Y.

products. Naturally, this set of conditions called for another conveyor and another oven.

The company's present prime and final bake ovens were located on the roof of the building, to conserve space, and there was no remaining roof space for another oven. There was insufficient plant floor space available for the new oven too.

Then someone hit upon the bright idea of installing a vertical oven instead of the horizontal or A-type oven. That solved the problem. A vertical combination infrared electric convection oven was installed. It is well insulated. The conveyor carries the product upward and makes a return down trip to floor level where it leaves the oven to travel in a horizontal plane to the unloading station.

The new vertical oven is correctly engineered. There is no heat loss into the room. It is amazing the small amount of space required for finishing and baking the new product. Perhaps in some other plant, this idea or a modification of it can be used.

G. R. Varnish Corp. Holds 38th Annual Sales Convention

Gathered for a dinner session in a downtown hotel, members of the Grand Rapids Varnish Corp., Grand Rapids, Michigan, took part in the 38th annual sales convention held by the company, see accompanying picture.

The Board of Directors, and department heads of the Varnish Corporation played host to the salesmen, who assembled in Grand Rapids from all points of the compass to attend the two day refresher course on sales and new products.

Informal group discussions and demonstrations covered a wide range of subjects including advertising, color styling, new products, new applications, promotion plans, procedures, and reports on new fields of endeavor. The keen interest generated by these annual sales conventions is paralleled by the steady growth of the highly specialized Grand Rapids Corporation whose ultimate product in every field it serves, is individualized service.

Grand Rapids Varnish Corporation salesmen, department heads, executives and directors.

Cleaning Insides of Steel Drums

IN JUNE issue of "High Gradient" published by the Selas Corp. of America, one short article is entitled "Cleaning With Heat." Quoting from the article:

"We like to cite the case of one of our customers who not only saves the metal surface with paint, but also saves the painted surface with radiant heat.

"This customer is a manufacturer of undercoating which is shipped in open-end steel drums of the 54-gallon size. Empty drums are returned to them for further use, but must be cleaned of their residual matter before being refilled.

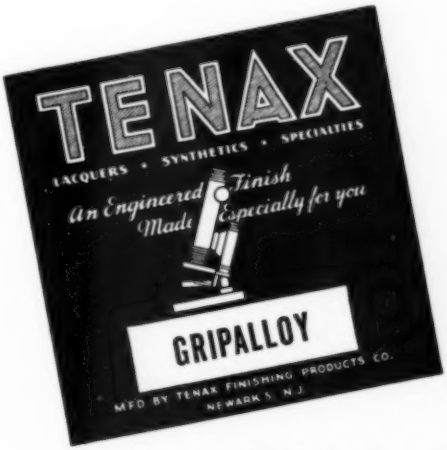
"The easiest way to clean out the residue is by loosening it with heat, but conventional heating not only softened the steel drum and shortened its life, but also ruined the paint on the exterior.

"Radiant gas-fired heat proved to be a happier solution. Rows of Duradiant burners placed inside the drum, which is rotated around them, loosen the residual material before the drum becomes hot enough to mar the exterior paint. Naturally, there is no softening of the steel, and the service life of the drum is increased."

Steel Sheet Separators

A new catalog page, Form SS-210, describing and illustrating the line of Homer Magnetic Steel Sheet Separators is now available from The Homer Mfg. Co., Inc., Dept. 116, Lima, Ohio.

The Label of Distinction seen in Distinctive Finishing Rooms!


TENAX
LACQUERS • SYNTHETICS • SPECIALTIES
An Engineered Finish Made Especially for you
GRIPALLOY
MFD BY TENAX FINISHING PRODUCTS CO. NEWARK 5, N.J.

. . . for tops in quality and complete satisfaction

"Paint & Relax with TENAX"

TENAX FINISHING PRODUCTS CO.
NEWARK, N. J.

I-SIS

Can Serve You Better

WITH

LACQUERS, THINNERS
INDUSTRIAL FINISHES

You'll Receive

24 Hour Service

to cut your finishing department inventory

PLUS . . .

★QUALITY—Rigid laboratory control to your individual specifications.

★PRICE—Quality for quality we will not be undersold.

I-S I S
CHEMICALS, INC.
SPRINGDALE, CONNECTICUT
TELEPHONE: STAMFORD 4-7206

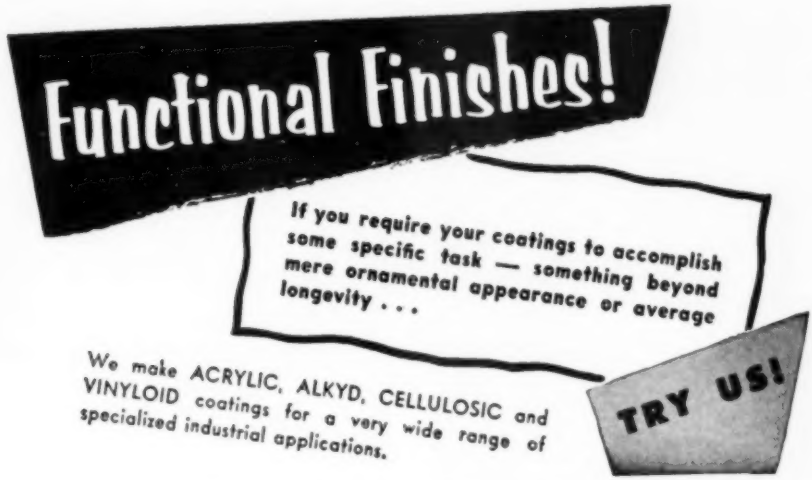
Successful Salesmen Know Their Field

★ One would ordinarily expect the salesman who knows his product to be more successful than one who does not. I believe this concept is especially true of the man who sells industrial finishes. He needs to know something more than his own products, however. He needs an understanding of protective and decorative coatings in general, and of their application too. He also needs to know something about the correct preparation of surfaces to receive these coatings. He must understand the language of the finishing foreman and the paint formulator. There is much to find out and no one can learn it overnight.

Few salesmen of industrial finishes are without a fair knowledge of their field, but most of them would do well to increase their knowledge. A salesman isn't expected to be a formulator, but he should know quite a bit about application methods and about the common complaints that arise in shops where finishing materials are used. He will save time and money and increase the customer's confidence in him if he doesn't have to call back to the laboratory or ask for a serviceman every time a customer asks a technical question or complains about something.

One of the best finishing material salesmen I know owes much of his success to his wide knowledge of his field, which he has acquired over the years. He can handle a production spray gun with authority and can easily demonstrate the differences in

★ *Guest Editorial . . . Many readers can write an excellent editorial—two or three paragraphs that present a timely suggestion or valuable idea which will stimulate thought on a live subject. The Editor welcomes guest editorials and pays for those used.*


Functional Finishes!
If you require your coatings to accomplish some specific task — something beyond mere ornamental appearance or average longevity . . .
We make ACRYLIC, ALKYD, CELLULOSIC and VINYLOID coatings for a very wide range of specialized industrial applications.
TRY US!

• **THE VARNISH PRODUCTS COMPANY**

5206 Harvard Avenue, Cleveland, Ohio

hiding and mileage. He has the knowledge to judge whether or not a competitive coating is doing a good job. He has more than once observed trouble coming in a customer's plant because of lax practices, and has pointed it out before the situation became acute. His advice is often asked on finishing procedures. His experience and knowledge give him facts upon which to base his judgment.

It takes effort, persistence and the asking of many questions for a salesman to get to the stage where he has more than a superficial knowledge of his field, but it pays off in making his work easier and in increasing his sales.—*E. V. Goldstein.*

Counter-Flame. This is the name of a new fire retardant (decorator's) paint recently announced by Adelphi Paint & Color Works, Inc.

TOMORROW'S Products Tested TODAY

A service to aid industry in producing longer-lasting and better-looking products. Quick predetermination of durability and permanency by actual exposure test in South Florida. Write us today for full information.

SOUTH FLORIDA TEST SERVICE

EST. 1931

4201 N. W. 7th St. Miami 34, Fla.

Whose Business Is It To Catch Mistakes?

A spirit of cooperation is highly desirable between employees and the company. Recently I saw an example of what happens when this cooperative spirit is lacking. I was being conducted through a plant. As we passed along the assembly line I saw one unit being assembled in which a concealed part had not been painted at all. The man who was taking me through the place noticed that I saw

ELIMINATE COSTLY REJECTS IN YOUR FINISHING DEPT. WITH DETROIT "TAC" RAGS

DETROIT "TAC" RAGS are an absolute necessity for cleaning any metal, wood or plastic surface before painting. Removes all dust, lint and sanding particles. Order today through your supplier.
STANDARD OF THE FINISHING INDUSTRY SINCE 1934
DETRO MFG. & SALES CO., INC., CULVER CITY, CALIFORNIA

YOU
Can *rely* on
RANDOLPH

FOR PROMPT SHIPMENT IN ANY QUANTITY OF

PERFORMANCE PROVED
GOVERNMENT SPECIFICATION
FINISHES

•

Lacquers • Enamels • Dopes • Thinners
Clear Metal Finishes • Colored Lacquers
Clear S.G. for Metal • Texture Enamels
Specialized Production Finishes
Aircraft Finishes

•

RANDOLPH
PRODUCTS CO.
CARLSTADT, NEW JERSEY

the unpainted part, and with some embarrassment, made the excuse that assemblers were not inspectors. "They only assemble parts that are brought to them."

This is true, and I quite agree that machine and hand operators should not be required to assume the duties of an inspector to pass on the size of a part or the quality of work performed. On the other hand, one does not have to be an inspector to see an unpainted part, concealed or otherwise. To assemble such a part is a clear indication of a lack of any cooperative spirit between employee and the company who pays him wages. The employee shows little pride in his work, or the product he is turning out—or loyalty to his company.

Where these conditions exist, the entire blame cannot always be placed on employees. Sometimes the worker's attitude is merely a reflection of of the company's attitude toward its employees. Good public and employee relations produce many concealed dividends which soon become apparent.

New England Regional Office Opened by Detrex

Detrex Corp., Detroit, has opened a New England Regional office at 35 Colony St., Meriden, Conn. Under the direction of A. D. Chabot, the new office will serve Vermont, Maine, New Hampshire, Massachusetts, Connecticut and Rhode Island.

Serving **THE SOUTHEAST**

- LACQUERS
- SEALERS
- FILLERS
- TONERS
- GLAZES
- PIGMENTED WIPING STAINS
- NGR STAINS

Complete Technical Service At Your Disposal

SNYDER BROTHERS COMPANY
Manufacturers of Quality INDUSTRIAL LACQUERS
P. O. BOX 548 — TOCCOA, GEORGIA

GAS-TIGHT! FOG-PROOF!
GOGGLES

PROTECT EYES AGAINST PAINT SPRAY, dust, fumes, gas, smoke, etc. Can be worn with any make respirator or mask. Soft, pliable rubber frames give air-tight fit on any shape face. A few drops of water on inside of lenses keep fog off by a simple nod or shake of head. Sample $2.00 postpaid! Order today!

H. S. COVER, South Bend, Indiana

Random Comment on the Industrial Scene

(Continued from page 8)

or no maintenance; they are unaffected by sun, rain, snow and temperature changes.

The message and border are raised above the background, giving a third dimensional effect which is easily read; the raised portions are a full molded part of the sign and will not separate from it. Signs can be furnished with Scotchlite reflective sheeting on the message side.

* * *

Machine Matches Color. An electronic device that matches colors more accurately than the eye has been patented by Hugh R. Davidson and Joseph M. Lambert.

A beam of light is passed through a solution of the standard color to be matched. A second beam is passed through solutions of the component dyes. The latter solutions are in wedge-shaped glass containers that can be shifted to vary the length of the light path through each until the machine indicates that the colors match.

Then the dyes are mixed in proportions to the respective slices of color through which the second beam passes.

MORSE
VERTICAL DRUM TRUCK
ROCK-A-DRUM

Picks up 55-gal. drums, rolls them over for side draining. Becomes a rugged stand on 3-in. wheels.

Morse Mfg. Co., Inc. 763 W. Manlius Street E. Syracuse, New York

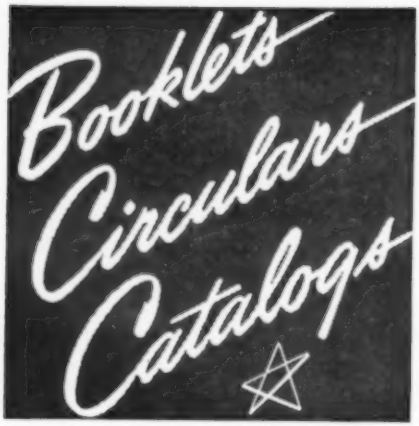
SUNSHADE PAINT FOR GLASS
reduces heat and glare through windows and skylights
REX INDUSTRIAL PAINT WORKS
Ossining, New York
MAINTENANCE PAINT FOR FACTORIES

Prevent Flock From "Balling Up"

(Continued from page 87)

tive humidity. Result: You prevent moisture absorption by the flock fibers and there is no "balling up."

During these seasons of the year, if this lamp is allowed to burn overnight, over weekends or holidays, the application of flock can begin promptly any time, without any preliminary conditioning, as the fibers will always be dry and in good condition.—*A.*



Alodizing with Alodine

"Alodizing with Alodine No. 1200" is a 4-page bulletin offered by American Chemical Paint Co., Ambler, Pa. It describes Alodine, a product designed to protect unpainted aluminum and to provide an effective bond for organic finishes.

Chemical Fire Extinguishers

Four-page catalog DC-62254 shows four models in the new line of dry chemical fire extinguishers built by Randolph Laboratories, Inc., 8 E. Kinzie St., Chicago 11, Ill. Features include push-button release, 35-ft. range, and color dial to indicate the portion of chemical remaining. Cap.: 6, 12, 20 and 30-lbs. of chemical.

Parts Handling Baskets

A 4-page bulletin on parts handling baskets is by the Wire & Iron Products, Inc., 1721 Sixteenth St., Detroit 16, Mich. Baskets are made of wire, wire mesh, expanded metal and perforated metal. They may be used for handling parts during cleaning and dip coating operations. Patented inter-locking handle provides for safe and easy stacking.

New Du Pont Polyester Film

A booklet showing where "Mylar" polyester film can be used in industrial applications is offered by Du Pont Co. The booklet describes various uses of the new Du Pont product, including electrical insulation, industrial tapes, cap lining, drum lining, a base for metallizing and for metallic yarn, a protective wrap for pipe line insulation, decorative laminations, etc. Copies are available from Film Department, Du Pont Co., Wilmington 98, Delaware.

Spray Gun Motion Study

High quality finishes at a minimum cost with less fatigue is the theme of a new booklet, "Spray Gun Motion Study," available from DeVilbiss Co., 300 Phillips Ave., Toledo 1, Ohio. The booklet includes a description of the procedure in spraying various surfaces which are encountered in production spraying operations.

A copy of the booklet may be obtained by writing to the DeVilbiss Company, 300 Phillips Avenue, Toledo 1, Ohio.

Stanley Chemical Issues Bulletin on New Wash Primer

A bulletin has just been issued by the Stanley Chemical Co., 77 Berlin St., East Berlin, Conn., containing full details about the application of its new one-package wash primer, 40X-610. According to the manufacturer this outstanding primer will allow outdoor storage of steel or iron parts for up to one year without topcoating. The bulletin on Stanley 40X-610 may be obtained free by writing to Stanley Chemical Co.

Technical Bulletin Available On Power Spray Washers

Peters-Dalton, Inc., 17900 Ryan Road, Detroit 12, Mich., has just published a new 16-page brochure (Technical Bulletin No. 301) entitled Power Spray Washers. This two-color, profusely illustrated booklet groups and discusses, in a clear and comprehensive manner, all types of power spray washers and their layouts and applications. Included are 15 engineering drawings, incorporating only the essential features of a number of the most commonly used types of washers.

IDEAL TACK RAGS
FOR A PERFECT FINISH
Bulk or Bagged
IDEAL CHEMICAL COMPANY
1499 Dean Drive, South Euclid 21, Ohio

New 60-page 1954 catalog on
Paint Testing Instruments
is now available
A copy will be sent on request.
GARDNER LABORATORY, INC.
Bethesda 14, Md.

CLASSIFIED ADVERTISING

POSITION WANTED.

Furniture plant manager or superintendent available. Twenty years experience in the manufacture of case goods, tables, and television sets. Can handle and setup cost and purchasing departments also. Best of references upon request. Presently employed. Address IF-251, care Industrial Finishing.

CAN YOU WRITE?

If you can write a letter or simple report on using, servicing or selling finishing materials or equipment, we have an interesting proposition for you. Address IF-234, care Industrial Finishing.

REPRESENTATIVES WANTED.

Company that manufactures complete line of Industrial Ovens desires representatives who call on finishing trade. Address IF-253, care Industrial Finishing.

REPRESENTATIVE WANTED.

AAA1 Chicago manufacturer desires an experienced product finish salesman to cover Indiana and the western part of Ohio. Must live in that territory at present and have a successful sales record selling baking enamels, wrinkles, hammers, farm equipment finishes, etc. We can offer you a good opportunity with a sound future, so please write and give full particulars regarding yourself. Your reply will be held in strict confidence. Our salesmen know of this ad. Address IF-237, care Industrial Finishing.

WANTED.

Furniture lacquer formulator desired. Due to expanding demand for our products, it is necessary to add to our existing technical staff. SNYDER BROS. CO., P. O. Box 548, Toccoa, Georgia.

QUALITY

End flocoat problems

WRITE . . .

Get the help we are giving others.

Quality Custom Finishes Since 1865

CINCINNATI VARNISH CO.
CINCINNATI 12, OHIO

AGATEEN

Clear Baking Lacquer 13-C

Recommended for Name Plates, Dials, Emblems, etc. Can be blanked, drawn or sheared after finishing.

Clear Baking Lacquer 13-C is an excellent all-purpose lacquer for all metals.

FAMOUS FOR APPEARANCE, ADHESION, DURABILITY AND MILEAGE.

Minimum orders accepted.

Agate Lacquer Mfg. Co., Inc.
Serving Industry Since 1927
11-13 43rd Road
Long Island City, N. Y.
Stillwell 4-0660-1

AGATEEN
THE LAST WORD IN QUALITY

Conscientious Craftsmanship on

SILK SCREENS

The new and exclusive process used to make the ATLAS SCREEN insures long life and guarantees complete satisfaction.

A full line of silk screen supplies and equipment. *(Write for Free catalog—No. 134.)*

Use our free industrial consulting service.

ATLAS
SILK SCREEN SUPPLY CO.
CAnal 6-6234 865 Milwaukee Ave.
CHICAGO 22, ILL.

CHEMISTS WANTED.

Vinyl, enamel and lacquer chemists wanted by aggressive old established firm located in the East. Only experienced men with proven record of accomplishment need apply. Must be well grounded in all phases of research, control and production. Salary commensurate with ability. Write giving personal data, education, experience. All replies will be held in strictest confidence. Address IF-245, care Industrial Finishing.

EXCEPTIONAL OPPORTUNITY

With unlimited income for young man with product finishing experience to sell established line of industrial finishes in protected territory. Expenses and draw against commission. Give full details of experience and background in reply, which will be held in strict confidence. Address IF-252, care Industrial Finishing.

PAINT SALES REPRESENTATIVE.

For industrial finishes, in Miami area. Established territory, good salary and commission, excellent potential. Give full details in first letter. CROWN PAINT INC., 2127 N. W. 1st Ave., Miami, Florida.

SALES REPRESENTATIVES.

National manufacturer with growing product finishing department seeks men for Eastern-Central Pennsylvania, Lower New England and Metropolitan New York. This is an opportunity for men with a business following in these areas. Request you write and give complete details about yourself. Our men know of these openings. Address IF-254, care Industrial Finishing.

INDUSTRIAL SALESMEN

Jones-Dabney will soon open several new industrial paint territories, each possessing high sales potentialities which with successful effort backed by Jones-Dabney reputation, laboratory and production capabilities, should produce excellent incomes. Only experienced industrial paint salesmen will be considered for these openings. We will treat in confidence your inquiry to R. A. Smith, Jr., Jones-Dabney Co., Station E, Louisville, Ky. Phone Magnolia 6900.

REPRESENTATIVE WANTED.

AAA1 Chicago manufacturer desires an experienced product finish salesman to cover Iowa and the eastern part of Nebraska. Must live in that territory at present and have a successful sales record selling baking enamels, wrinkles, hammers, farm equipment finishes, etc. We can offer you a good opportunity with a sound future, so please write and give full particulars regarding yourself. Your reply will be held in strict confidence. Our salesmen know of this ad. Address IF-236, care Industrial Finishing.

LACQUER FORMULATOR.

Opportunity for good man with several years experience in automotive or industrial lacquer. We have new laboratory, completely air-conditioned. Write complete resume, including age, education, experience and salary expected. Include a small photograph. Address Personnel Manager, FORBES FINISHES DIVISION, Pittsburgh Plate Glass Co., Cleveland 11, Ohio.

SALESMAN WANTED.

Experienced salesmen selling lacquer and synthetic finishes. Good opportunity, open territory, good laboratory cooperation. Factory in Newark area. Apply in detail. Address IF-207, care Industrial Finishing.

SALES REPRESENTATIVE

Experienced to handle complete line of lacquer products of a quality lacquer manufacturer. Excellent opportunity for live wire. Our personnel know of this opening. Address IF-206, care Industrial Finishing.

SOLVENT CLEANING SERVICE.

Dirty lacquer solvent can be shipped to us for distallation and returned to you clean and ready for use. Within 200 mile radius of Louisville a substantial economy can be realized. Cost runs from 14c to 19c per gallon. KENTUCKY COLOR & CHEMICAL CO., 600 N. 34th St., Louisville 12, Ky.

PAINT TESTING LABORATORY
Any test in F. S. TT-P-141b
PENNIMAN & BROWNE, INC.
Chemists-Engineers-Inspectors
341 St. Paul Place-Baltimore 2, Md.

BARGAINS IN FINISHING EQUIPMENT

DeVilbiss Degreasing and Washing Booths with Pump and CO2 Protective System.
R. C. Mahon Spray Booths with Blower, Pump, Filter, Turntable, Etc.
Barrett Centrifugal Enameler for Filwhirl or Dipspin Methods.
Binks and DeVilbiss Pressure and Mixing Tanks. Sizes 5 to 125 Gallons.
C. M. Hall Infra Red Oven, Degreasers, Blowers, Motors, Switches, etc.
Write for Particulars, or Inspect at

GENERAL TRADERS, INC. 2629 W. GRAND AVENUE, CHICAGO 12, ILLINOIS

SERVICES AVAILABLE.

Industrial Paint Manufacturer, long-established, well-rated, calling on Connecticut manufacturers would like to contact manufacturer with idea of selling, warehousing, distributing and servicing your product. Send inquiries to BRISTOL LACQUER & CHEMICAL CO., Forestville, Connecticut.

SERVICES AVAILABLE.

Southern Vermont lacquer, thinner and paint manufacturer has manufacturing facilities to handle additional or similar manufacturers' products at low production cost. Excellent 24-hour trucking and freight service to Northeast areas. C. E. BRADLEY LABORATORIES, INC., Brattleboro, Vermont. Phone, Alpine 4-5211.

WANTED TO PURCHASE.

Three 6-ft. water wash booths to be used in handling 18-ft. material or as individual units. Equipment to be in first-class condition. Quote price and supply all necessary information. BUCHANAN LUMBER COMPANY, Cumberland, Md.

WANTED TO BUY.

A Udylite Junior Automatic Plating Machine suitable for zinc or equivalent. Please give full information, including price and where the machine can be inspected in your first letter. Address IF-255, care Industrial Finishing.

PAINT STRAINERS

For straining lacquers, enamels, paints. Made of heavy paper with cloth inserts in different meshes. 6-in. diameter conical shape. Write for catalog and samples. GERSON CO., Box 175, Mattapan 26, Mass.

WANTED TO BUY.

Will buy your dirty Thinners and Solvents. Send samples or letters giving approximate contents and solids. Address THE JOHANN CO., 8547 S. Ashland Ave., Chicago, Ill.

FORD CUPS

THE VOL-U-METER COMPANY
Buffalo 16, N. Y.

FOR SALE.

Automatic Paint Spray Machines, "Sepanski." Excellent condition. Less than one year old. Five are 12-inch, one is 18-inch size. Less than half original cost. TIP-TOP PRODUCTS CO., Omaha 2, Nebraska.

FOR SALE.

One Detrex Degreaser, Model 325; Straight Through Monorail; Vapor-Spray, Vapor-Type, Steam Heated; 57' 5" long, 6' 6" wide, 20' 11" high; Work Clearance 35" wide x 72" high. 6,000 lbs. per hr. production. Equipped with 60-gal. per hr. still. Electric Equipment now 220/3/60. May be inspected in operation before Sept. 15th.

One Detrex Degreaser, Model VS-800; Manually Operated; Vapor-Spray Type, Steam Heated; 7' 6" high, 10' 3" long, 4' 3" wide; Work Space 48"x120"x48"; 3,000 lbs. production.

Address inquiries to TOLEDO DESK & FIXTURE CORP., 1020 Ford Road, Maumee, Ohio. Attn: G. R. Luallen.

FOR SALE AT BARGAIN PRICE. COMPLETE FINISHING SYSTEM.

Manufactured by Gehnrich Oven Company, 4-tank cleaning unit, 350-gallon dip tank, Gas-fired 400° F. automatic baking oven. New endless cross-bar conveyor with variable speed drive. For small parts up to 1-ft. x 4-ft. x 6-in. thick. Floor space required, 50-ft. x 10-ft. x 12-ft. high. Like new condition. ALL-STEEL EQUIPMENT, INC., Aurora, Illinois.

INDEX to Advertisers

Agate Lacquer Mfg. Co. 125
Allied Finishing Specialties Co. 111
Alvey-Ferguson Co., The 48
American Air Filter Co., Inc. 89
Arco Co., The 79
Atlas Powder Co. 27
Atlas Silk Screen Supply Co. 125
Ayerst Laboratories 85

Barker Chemical Co. 29
Barrett Varnish Co. 93
Beck Equipment Co. 42
Benjamin Franklin Pt. & Varn. Co. 10
Better Finishes & Coatings, Inc. 95
Bond Chemical Products Co. 115
Burdett Mfg. Co. Back Cover

Carolina Paint & Varnish Works 10
Cellusuede Products, Inc. 87
Cincinnati Cleaning & Finishing Machinery Co., Inc. 11
Cincinnati Varnish Co. 125
Claremont Waste Mfg. Co. 86
Classified Advertising 125-126-127
Cover, H. S. 123

Day & Co., James B. 71
DeBurgh Conveyors, Inc. 75
DeSoto Paint & Varnish Co. 10
Despatch Oven Co. 9
Detro Mfg. & Sales Co., Inc. 122
DeVilbiss Co., The 46-47
Dolan & Co., V. J. 5
DuBois Co., Inc., The 6
DuPont de Nemours & Co., E. I. 64-65
Duralac Chemical Corp. 43

Egyptian Lacquer Mfg. Co., The 26
Ell-Bee Chemical Co. 117
Enthone, Inc. 16
Erikson Mfg. Co. 63

Ferbert-Schorndorfer Co. 97
Fostoria Pressed Steel Corp. 13

Gardner Laboratory 124
General Traders, Inc. 127
Glidden Co., The 18-19
Grand Rapids Varnish Corp. 2
Gray Co., Inc., The 107

Ideal Chemical Co. 124
Illinois Paint Works 10
Industrial Ovens, Inc. 51
Interchemical Corp. Second Cover
I-Sis Chemicals, Inc. 120

Jamestown Finishing Products, Inc. 73

Koch Sons, Inc., George 67

Lanly Co., The 39
Lawrence-McFadden Co. 91
Lilly Varnish Co. Front Cover
Lowe Brothers 34-35

Maas & Waldstein Co. 31
Morse Mfg. Co. 123

National Affiliates 10
National Air Sander, Inc. 101
National Chemical & Plastics Co. 1
Neilson Chemical Co. 41
Newcomb-Detroit Co. 111
New York Woodfinishers Supply Co. 117
Nikolas & Co., G. J. 45
Northwest Chemical Co. 53

Oakite Products, Inc. 40
O'Brien Corp. 103

Pacific Paint & Varnish Co. 10
Penniman & Browne, Inc. 126
Perfection Paint & Color Co. 69

Randolph Products Co. 122
Ransburg Electro-Coating Corp. 25
Rayon Processing Co. 83
Reliance Varnish Co. Third Cover
Rex Industrial Paint Works 123
Reynolds Metals Co. 99
Rockford Varnish Co. 77
Ross Engineering Corp., J. O. 21
Roto Finishing Systems 109

Sander Corp., The Monroe 105
Schwartz Chemical Co., The 7
Shell Chemical Co. 113
Sno Flake Products Co. 114
Snyder Bros. Co. 122
Solvents & Chemicals Group, Inc. 33
South Florida Test Service 121
Sprayon Products, Inc. 59
Spruance Co., The Gilbert 14-15

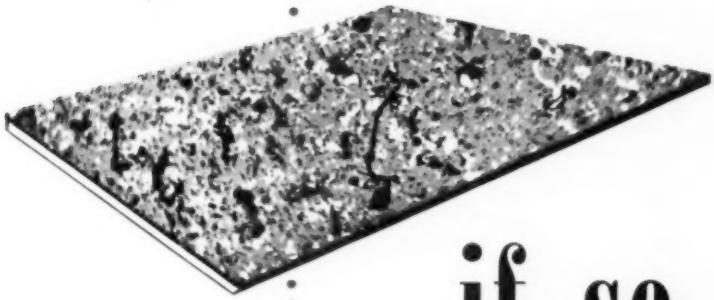
Tenax Finishing Products Co. 119
Tousey Varnish Co. 57
Trippe Mfg. Co. 8

United Chromium, Inc. 55
United Lacquer Mfg. Co. 12

Varnish Products Co. 121
Vol-U-Meter Co. 115-127

Wendell Mfg. Co. 44

Young Brothers Co. 17



Are you interested in 2 or more colors IN ONE SPRAY application ?

...if so

SPECKLE-TONE *is the answer!*

Speckle-Tone is the ideal finish for materials having visible surface irregularities, such as wood, hardboard, papier-mache, concrete, plaster, paper, fabric, plastics, etc. Requires no primer when applied solidly, or can be used over contrasting primer to show its color between the flecks. The size and color of the speckles can be varied—yet duplicated—at will. Endless new effects can be produced by spraying as many colors as desired from one gun at one time. No special equipment is required. Speckle-Tone is economical, durable and practical. Its multicolored, textured appearance promotes the sale of the finished article. *Write today for sample and further information.*

Rely on Reliance

RELIANCE VARNISH COMPANY *Incorporated*

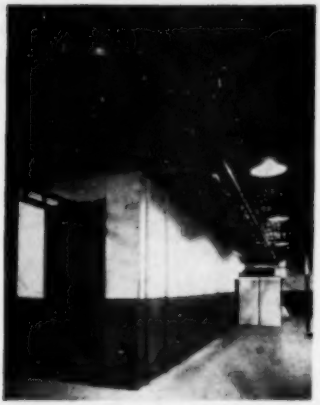
LOUISVILLE, KY.

Affiliated Factories in

CHICAGO, ILL.
LOS ANGELES, CALIF.
ASHEVILLE, N. C.

How are Your Baking or Drying Costs?

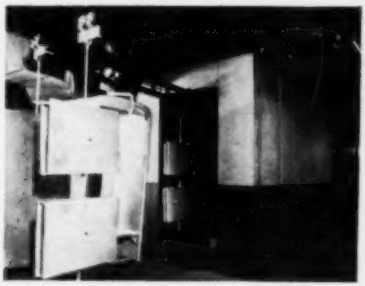
The **BURDETT**
(Gas-Fired)
"Radiant Heat"
OVEN



...betters conventional methods by [redacted]

It's a story that has been told and proved over and over again — 30% to 70% savings in costs and a better product also. In a Burdett "Radiant Heat" Oven the temperature remains uniform from top to bottom — an even bake at all times. Combustion is more complete than in any other type of oven — therefore, important fuel savings. Run any combination of colors through simultaneously with perfect results. A Burdett "Radiant Heat" System can be installed in your present oven or be engineered as a completely new finishing system. Send your paints and samples of your products — or, bring them to our laboratories for proof of these and many other advantages before you sign on the dotted line. A test run will convince you—do it now! No obligation.

Photos of Sub-Zero Freezer cabinets drying the Burdett way in 20 min. at 325° F. Higher gloss than usual and a harder finish is also claimed.



B U R D E T T
MANUFACTURING COMPANY

3425 West Madison Street, Chicago 24, Illinois

DETROIT PHILADELPHIA NEW YORK CLEVELAND DALLAS

Also Manufacturers of "Radiant Heat" Systems, Ovens, Heaters, Air Make-Up Units, Spray Booths and Washers.